APPENDIX A

UNITED STATES COURT OF APPEALS FOR THE FEDERAL CIRCUIT

02-1071

DONALD H. RUMSFELD, SECRETARY OF DEFENSE,
Appellant,

v.

UNITED TECHNOLOGIES CORPORATION, PRATT & WHITNEY,
Appellee.

DECIDED: January 15, 2003

Before NEWMAN, LOURIE, and DYK, *Circuit Judges.*

DYK, *Circuit Judge.*

The Secretary of Defense ("the government") appeals from the July 30, 2001, decision of the Armed Services Board of Contract Appeals ("Board") in favor of United Technologies Corp., Pratt & Whitney ("Pratt"). *Appeals of United Techs. Corp., Pratt & Whitney Group*, ASBCA Nos. 47416, 50453, & 50888, 01-2 BCA 31,592 (July 30, 2001). The Board found that payments made to Pratt's foreign suppliers to acquire parts under "collaboration agreements" were not "costs" for purposes of calculating indirect cost pool (overhead) allocation bases under the Cost Accounting Standards (CAS). *Id.* at 1. Because we conclude that Pratt did incur a "cost" for collaboration parts, we vacate and remand for further proceedings.

INTRODUCTION

The facts underlying this case are complex, but are virtually undisputed by the parties. During the period from

1984 to 1996 Pratt had a number of cost plus contracts with the government. These contracts incorporated the Cost Accounting Standards.[1] Pratt also had a number of commercial engine contracts.

Under the government contracts Pratt was reimbursed both for allowable direct and indirect costs that were allocable to the government contracts. We have discussed the differences between allowability and allocability in our decision in *Boeing North America, Inc. v. Roach*, 298 F.3d 1274, 1280 (Fed. Cir. 2002), where we noted that "[a]llocability is an accounting concept involving the relationship between incurred costs and the activities or cost objectives (*e.g.*, contracts) to which those costs are charged . . . . The concept of cost allowability concerns whether a particular cost can be recovered from the government in whole or in part." Allowable direct costs are directly reimbursed if the particular cost is allocable to a government contract. *See id.* The allocation of indirect costs pursuant to CAS is more complex.

Allowable indirect costs must be allocated according to a base comprised of direct costs, so that each dollar of direct costs in the base bears the same amount of indirect costs. Indirect costs include overhead, which is calculated by grouping the costs that cannot be directly allocated (here to a particular government contract or commercial engine contract). Under CAS, the overhead pool (*i.e.*, the aggregated indirect costs) may then be allocated across contracts and programs using the "material costs" associated with each contract or program as the basis for allocation. CAS 418-50. The larger the total material costs associated with a contract, the greater its share of the overhead pool. It is therefore in the government's interest to maximize the amount of material costs associated with commercial contracts in order to increase the value of the commercial program's portion of the

---

[1] Codified at 48 C.F.R. § 9903-05 (2002).

overhead pool and inversely decrease the government's share of overhead; and it is in Pratt's interest to minimize the commercial program material costs, decrease the value of the commercial program's portion of the overhead pool and increase the government's share of overhead.

The dispute here concerns whether amounts paid to acquire certain "collaboration parts" for commercial engine programs constituted "material costs" under CAS that should have been included in the programs' allocation bases used to allocate overhead. The government argues that these amounts were "costs" that should have been included; Pratt argues that the amounts were not "costs" and that they were correctly excluded. The consequences of inclusion or exclusion are allegedly considerable, amounting to $250,000,000 (including interest), according to the government's calculation.

BACKGROUND

A. Pratt's Collaboration Agreements

The parts in question were produced for Pratt by foreign parts suppliers for three commercial aircraft engines (the PW2000, PW4000, and JT8D-200 engines) pursuant to "collaboration agreements" between Pratt and these foreign parts suppliers beginning in 1977. The PW2000 engine program (originally named the JT10D engine program), which was representative in all relevant aspects of the three engine programs, included collaboration agreements between Pratt and Motoren-und Turbinen-Union Muenchen GmbH (MTU) of Germany and Fiat Aviazione Societa Per Azioni (Fiat) of Italy, dated July 12, 1977. Pratt had similar agreements for the PW4000 and JT8D-200 engine programs with other foreign parts suppliers.

Pratt was the only entity that had a direct contractual relationship to the purchasers of the engines. The foreign parts suppliers had no direct relationship to the purchasers. However, under the collaboration agreements between Pratt

and each parts supplier there was a complicated agreement that involved substantial risk sharing. Pratt did not pay a preset price for the collaboration parts. Instead, under the agreements, each collaborator was assigned a percentage share of the engine program ("program share"). Substantially all of the collaboration agreements required each collaborator to pay to Pratt a substantial up-front "program entry fee" directly related to its program share. The collaborator was to receive its program share of the revenues derived from the engine sale by Pratt "in consideration of the parts manufactured." *United Techs.*, 01-2 BCA ¶ 31,592, at 15 (citation omitted). The collaborator was to supply parts with an "equivalent engine value" based on its "Manufacturing Target Cost" (MTC), *i.e.*, parts with a particular combined value in relation to the total value of the engines produced by Pratt (the relative value of the parts being equal to the program share). The MTC of a part was "the estimated cost of each part if Pratt were to manufacture the part." (Appellee's Br. at 6 n.3.) The collaborators also shared in certain costs that Pratt incurred for the engine programs, because a fee called "Drag" was subtracted from their revenue shares, the Drag representing Pratt's "disproportionate program expenses," which include "overhead for the program management and administration, marketing and sales, product support, material handling, and other administrative functions." *United Techs.*, 01-2 BCA 31,592, at 14. The amount of "Drag" was based on a negotiated agreement between Pratt and each collaborator. The express language of the collaboration agreements also provided that the relationship between Pratt and the foreign collaborators was that of independent contractors and not as partners. *Id.* at 16.

The collaboration parts were used by Pratt either directly to construct engines or as spare parts. The name of the form used by Pratt to request the parts was "purchase order." *Id.* at

13. The Board described Pratt's treatment of the collaboration parts by Pratt as follows:

> [The] parts . . . are . . . received, stored and moved through the Manufacturing Division (MD), like other purchased parts (R4, tab 307 at 2515). The collaboration parts are intermingled with and are not segregated from Pratt's other purchased and manufactured parts (R4, tab 407 at 4).

Id. After the parts were received by Pratt, "[t]he collaboration agreements provide[d] that title to the parts furnished to Pratt remain[ed] with the collaborator until the parts [were] delivered to [an engine or spare part] customer." *Id.* According to the collaboration agreements, title to the parts was transferred to Pratt immediately prior to delivery. Thus, Pratt became the owner of the parts before delivery in order to pass title of the engine or spare part to the engine or spare part customer.

The collaboration agreements included a number of other risk sharing aspects not generally found in contracts for the acquisition of materials. Examples of these risk sharing aspects included: sharing in the risk that the engine program would lose money; sharing in the administrative expenses for the engine programs; sharing in price discounts and rebates to customers; sharing in liability to third parties; and sharing the risk that due to a change in circumstances, *e.g.*, a redesign of the engine, the equivalent engine value of the parts produced by another collaborator might change, altering the percentage share of the parts contributed by the collaborator and therefore its program share.

Pratt also acquired engine parts under subcontractor agreements with parts suppliers that were both more traditional and less complex. Pratt agreed to purchase parts from these suppliers for a fixed price per part, and took title on the delivery of the parts.

B. Cost Accounting Standards

Many government contracts, like the government contracts here, are structured as "cost-reimbursement" contracts, requiring the government to reimburse the contractor for "allowable" costs incurred to perform the contract. As noted above, costs are characterized by both their allowability (whether the government is required to reimburse the costs) and allocability (whether the costs are to be allocated directly to a final cost objective, or indirectly among a number of cost objectives). As previous decisions of this court have made clear, the Federal Acquisition Regulations (FAR) govern allowability, and CAS governs allocability of costs. *See Boeing*, 298 F.3d at 1280.

The CAS comprise a set of rules promulgated by the Cost Accounting Standards Board (CASB) that regulate the accounting practices of government contractors. *See id.* at 1282-83. While CAS did not directly cover Pratt's commercial engine contracts, CAS dictated the accounting treatment of Pratt's commercial contracts in relation to its government contracts.

The CAS rules provide for the allocation of a government contractor's direct and indirect costs. While direct costs generally can be allocated to a particular program or contract, a problem arises in how to allocate indirect costs, for example, general and administrative (G&A) expenses (overhead), which "represent the cost of the management and administration of the business unit as a whole." CAS 410-20. These overhead expenses are to be distributed across the corporation's business. Where, as here, there are non-government contracts (*i.e.*, the commercial engine programs), it is still necessary that the engine programs support their share of the overhead expenses.

Pratt allocated its G&A expenses to cost objectives using direct material cost as its allocation basis, *i.e.*, as the repre-

sentation of the activity associated with a cost objective. Thus, a cost base calculated using direct material costs aggregated the "costs" of all materials used in performing the project. For the PW2000 engine program (which the parties have agreed is representative) Pratt treated parts purchased from traditional parts suppliers as having a "material cost," but treated parts acquired under "collaboration agreements" as having no direct "material cost" associated therewith, and were excluded by Pratt from the material cost bases associated with the PW2000 program. The effect was to exclude 16.8% of the parts in the PW2000 engine program from the cost base. Without a material cost associated therewith, no portion of the G&A (overhead) pool was allocated by Pratt to the collaboration parts. This was accomplished in the following manner for internal accounting:

> [Upon sale of an engine or spare part] Pratt . . . debits accounts receivable and credits sales for the amount of the sale. However, Pratt immediately debits sales for the collaborators' share of the revenue, and credits a "contra receivable" account in the same amount. . . . When cash is collected from a customer, Pratt debits cash and credits accounts receivable for the amount of the payment, and then debits contra receivable and credits cash for distributions to the other collaborators of their net revenue shares. . . . Thus, the net amount of sales and revenue due shown on Pratt's books is only Pratt's share.

(Appellee's Br. at 11-12) (emphasis in original).

From the inception of the collaboration agreements until July 2, 1996, after this dispute arose, Pratt treated its payment to collaborators differently for public financial statement purposes. For that purpose, Pratt treated the payments as a "cost of sales." Cost of sales represents the cost to the seller of the products sold. After this dispute arose in 1996, Pratt issued a public statement stating that the revenue shares would instead be treated as a reduction of gross sales, using Pratt's internal accounting methodology. This accounting

change meant that for financial statement purposes the collaboration parts would no longer have an associated cost.

C. Prior History and Proceedings

The present dispute began more than ten years ago. On January 24, 1992, a contracting officer of the Defense Logistics Agency issued a Final Finding of Noncompliance to Pratt. The contracting officer found that:

> [Pratt's] cost accounting practices with regard to commercial "collaboration" agreements are not in compliance with Cost Accounting Standards (CAS) 418 - Allocation of direct and indirect costs, 410 - Accounting of business unit general & administrative expenses (G&A) and 420 - Accounting for independent research and development costs and bid and proposal costs (IR&D/B&P).

(J.A. at 3855.) The specific basis for the finding of noncompliance was Pratt's failure to "include[ ] an appropriate measure of the cost of parts consigned by the collaborating partners in the expense allocation bases." *Id.* at 3856. The contracting officer required Pratt to use the revenue share attributable to collaboration parts as a cost for CAS accounting purposes for the accounting period from January 1, 1984, to January 24, 1992. This first decision did not quantify the amount determined to be owed by Pratt. Pratt appealed this decision to the Board.

On December 2, 1996, another contract officer of the Defense Logistics Agency issued a final decision of noncompliance for the "period 1984 through 1995, based upon Pratt's alleged noncomplaince with CAS 410, 418, and 420." *United Techs.*, 01-2 BCA ¶ 31,592, at 2. This decision incorporated the earlier decision, but covered a longer period than that decision and also quantified the amount determined to be due. The second contract officer found that the "collaborators [were] in essence subcontractors or vendors to

[Pratt]." (J.A. at 4837.) This was based on the contract officer's determination that: like subcontractors, the collaborators transferred title to the parts in exchange for payments (in the form of revenue share); the agreements themselves specified that no partnership was created; Pratt unilaterally set the sales price; and Pratt accounted for the revenue shares as "cost of sales" for financial and tax purposes. The contract officer demanded repayment totaling $157,593,610 plus interest of $102,696,501. This decision was appealed to the Board.[2]

The two pending appeals were consolidated before the Board. The government urged that the form of the transaction governed and that the transaction was legally a purchase by Pratt from a subcontractor. Pratt, on the other hand, argued that CAS did not define "cost"; that under such circumstances GAAP was properly interpreted as a supplement to CAS; that, under GAAP, the substance rather than the form of the transaction governed; and that the transactions were in substance either joint ventures or consignments. Pratt presented expert witnesses as to the meaning of CAS.

On the GAAP issue, both parties again presented expert witnesses. These witnesses differed as to whether substance over form was in fact a GAAP requirement. They also differed as to when substance over form should govern and as to the appropriate characterization of the "substance" of the particular transactions. Pratt's witnesses urged primarily that the transactions were properly characterized as joint ventures. Pratt called two expert witnesses on GAAP accounting, Charles Horngren and David Teece. Professor Horngren testified that the proper accounting treatment was to determine where on a spectrum or continuum of relationships

---

[2] A third appeal was also taken to the Board and was assigned appeal number 50888. The Board denied that appeal, United Techs., 01-2 BCA ¶ 31,592, at 55-56, and Pratt has not appealed that decision to this court.

the collaboration agreements fell based on seventeen identified factors.[3] He described a continuum between prime-subcontractor transactions and partnerships. Similarly, Professor Teece described a spectrum of relationships from arms length transactions to intra-firm transactions, including a "middle territory . . . refer[red] to as strategic alliances or collaborative arrangements." (Tr. 6-21.) He applied four factors to distinguish between the different relationships, though he admitted that "[t]here's no easy [sic] to quantify metrics that can be applied in each case, but I believe that there are basic thresholds that exist [in defining the four factors]. . . ." (Tr. at 6-20.)[4] Although he recognized that express provisions of the collaboration agreements distinguished them from partnerships, Professor Teece

---

[3] Professor Horngren testified on how he selected seventeen factors for characterizing transactions as follows:

> I started with the GAO—I can't remember the number that they cited. But there were several. And then, I added my own, based on my own knowledge of management accounting, and general characteristics that you worry about as an accountant, as to how you're going to portray a series of events, transactions, and relationships.

(Tr. At 7-64.)

[4] The Board characterized the methodology used by Professor Teece as follows:

> He used the following four umbrella "dimensions of interfirm relationship" which he had "distilled" from the literature in his analysis of the collaboration agreements: (1) the contractual and administrative structure of the arrangement; (2) the exchange of information, resources and capabilities that result in learning; (3) the distribution of risk; and (4) the willingness to accommodate change, avoid and resolve disputes . . . . His evaluation involved a continuum or transaction spectrum in which transactions at one end take place within a vertically integrated or multidivisional firm and at the other end are purely arm's length between two firms in a market . . . . In Dr. Teece's view, strategic alliances and subcontracts are mutually exclusive for a given set of transactions.

United Techs., 01-2 BCA ¶ 31,592, at 38.

testified that "[t]he formal structure [of a relationship] is not fundamentally material to my analysis. What is material to my analysis is the incentive structures and the fundamental economic relationships that are defined by the contract." (Tr. at 6-40.)

On July 30, 2001, the Board issued its decision holding that Pratt did not incur a "cost" for collaboration parts, and that, therefore, its accounting practices did not violate CAS. *United Techs.*, 01-2 BCA 31,592, at 52. The Board first determined that CAS did not provide a definition for "cost," and that therefore, GAAP could be used to resolve the issue. *Id.* at 45. The Board accepted Pratt's expert's testimony that under GAAP the "economic substance" of the collaboration agreements rather than their form should control, and specifically chose to "adopt the approach espoused by Professor Horngren." *Id.* at 47-49.

After accepting the "substance over form" argument, the Board proceeded to find that the agreements were more properly analogized to "joint ventures" or "consignments" than to subcontractors (as argued by the government). *Id.* at 49-50. In reaching this conclusion, the Board made subsidiary findings that "title remains with the collaborators" and that "the price of the parts is neither fixed nor determinable at the time of delivery and payment is contingent upon Pratt's sale to the customer." *Id.* at 50-51. The Board distinguished the collaboration agreements from supplier subcontracts based, in part, on the sharing of program risk and benefits. *Id.* at 45-48. The Board instead found that the collaboration agreements comprised a form of "collaborative partnering" and discounted the government's reliance on an express contract term referring to the collaborators as "independent contractors." *Id.* at 46-49.

The Board rejected Pratt's argument that a February 8, 1991, settlement agreement between Pratt and the government had resolved the issue of Pratt's CAS

compliance. *Id.* at 54.[5] Finally, the Board did not reach "Pratt's lengthy estoppel defense" based on its conclusion that no cost had been incurred. *Id.* at 53.

The government timely filed this appeal.

DISCUSSION

I

We have jurisdiction over this appeal pursuant to 28 U.S.C. § 1295(b) and 41 U.S.C. § 607(g)(1)(B). The standard of review applied to Board decisions is prescribed by statute, which provides:

> [T]he decision of the agency board on any question of law shall not be final or conclusive, but the decision on any question of fact shall be final and conclusive and shall not be set aside unless the decision is fraudulent, or arbitrary, or capricious, or so grossly erroneous as to necessarily imply bad faith, or if such decision is not supported by substantial evidence.

41 U.S.C. § 609(b) (2000); *Rice v. Martin Marietta Corp.*, 13 F.3d 1563, 1568 (Fed. Cir. 1993).

II

The issue in this case is whether CAS required Pratt to include a "cost" for collaboration parts in its allocation bases used to allocate overhead. Resolution of this question requires us to interpret CAS. Contrary to the Board's approach, the central issue we confront—the interpretation of CAS—is an issue of law, not an issue of fact, as we have made clear in our prior decisions. *Martin Marietta*, 13 F.3d at 1568; *see also Gen. Elec. Co. v. Delaney*, 251 F.3d 976, 978 (Fed. Cir. 2001) ("federal procurement law, [and] the board's conclusions of law, such as the meaning of a regulation or statute, are reviewed *de novo*"); *United States v. Boeing Co.*,

---

[5] This issue is not raised on appeal.

802 F.2d 1390, 1393 (Fed. Cir. 1986) ("The interpretation of regulations which are incorporated into government contracts is a question of law which this court is free to resolve."). The views of the self-proclaimed CAS experts, including professors of economics and accounting, a former employee of the CAS Board, and a government contracts accounting consultant, as to the proper interpretation of those regulations is simply irrelevant to our interpretive task; such evidence should not be received, much less considered, by the Board on the interpretive issue. That interpretive issue is to be approached like other legal issues—based on briefing and argument by the affected parties.[6]

CAS 410, which is entitled "Allocation of business unit general and administrative expenses to final cost objectives," provides in relevant part: "The cost input base used to allocate the G&A expense pool shall include all significant elements of that cost input which represent the total activity of the business unit." CAS 410-50(d). "Cost input" is defined as "the cost, except G&A expenses, which for contract costing purposes is allocable to the production of goods and services during a cost accounting period." CAS 410-30(a)(3). Pratt elected to use a form of total cost input accounting based on "material costs" as provided by CAS 418-50(d)(2)(iv).[7] Having chosen a base composed of "material costs," "all significant elements" of the cost of the materials

---

[6] Testimony as to the requirement of GAAP is another matter; the Board could properly consider expert testimony on such an issue.

[7] CAS 418 entitled "Allocation of direct and indirect costs" provides in relevant part:

> The base used to represent the activity being managed or supervised shall be determined by the application of the criteria below. All significant elements of the selected base shall be included . . . .
>
> (iv) A material cost base is appropriate if the activity being managed or supervised is a material-related activity.

CAS 418.50(d)(2) (emphasis added).

used to carry out the final cost objectives (contracts or programs) were required to be included. CAS 410-50(d).[8]

Thus, CAS mandated the use of "costs," here "material costs" in particular, in the base used to allocate indirect expenses. In order to determine whether Pratt incurred a "cost" or "material cost" for the collaboration parts, it is first necessary to determine the meaning of the terms "cost" and "material cost." Despite the ubiquitous use of the word "cost" throughout CAS, CAS does not provide a definition for the terms "cost" or "material cost." *See* CAS 301; John Cibinic, Jr. & Ralph C. Nash, Jr., *Cost-Reimbursement Contracting* 638 (2d ed. 1993).[9] We initially turn, therefore, to standard

---

[8] In addition to G&A allocation, independent research and development (IR&D) and bid and proposal (B&P) cost allocation under CAS 420 are also at issue here. In accordance with the CAS 420 Pratt chose to allocate these costs using the same bases as it used for G&A allocation.

[9] CAS does include definitions for a number of relevant terms as follows:

> (1) *Allocate* means to assign an item of cost, or a group of items of cost, to one or more cost objectives. This term included both direct assignment of cost and the reassignment of a share from an indirect cost pool.
>
> (2) *Cost objective* means a function, organizational subdivision, contract, or other work unit for which cost data are desired and for which provision is made to accumulate and measure the cost to processes, products, jobs, capitalized projects, etc.
>
> (3) *Direct cost* means any cost which is identified specifically with a particular final cost objective. Direct costs are not limited to items which are incorporated in the end product as material or labor. Costs identified specifically with a contract are direct costs of that contract. All costs identified specifically with other final cost objectives of the contractor are direct costs of those cost objectives.
>
> (4) *Final cost objective* means a cost objective which has allocated to it both direct and indirect costs, and in the contractor's accumulation system, is one of the final accumulation points.

dictionary definitions and other pertinent regulations. *See, e.g., Estate of Cowart v. Nicklos Drilling Co.*, 505 U.S. 469, 477 (1992); *Wis. Dep't of Revenue v. William Wrigley, Jr., Co.*, 505 U.S. 214, 223 (1992). Given that "material cost" is involved, the pertinent definition of "cost" is "an item of outlay incurred in the operation of a business enterprise (*as for the purchase of raw materials, labor, services, supplies*) including depreciation and amortization of capital assets." *Webster's Third New International Dictionary* 515 (1968) ("Webster's") (emphasis added).[10] There is no suggestion that the accounting source references use a materially different definition. Indeed, the parties before the Board agreed on a definition of "cost" as "the sacrifice incurred in economic activities - that which is given up or forgone to consume, to save, to exchange, to produce." *United Techs.*, 01-2 BCA 31,592, at 7, 51 (quoting FASB Concepts Statement No. 6, n.19). We have indeed approved the use of a similar definition of "cost" under earlier procurement regulations, stating that "'cost' is equated with the amount a contractor forgoes or gives up, i.e., its economic sacrifice, to obtain goods or services." *Riverside Research Inst. v. United States*,

---

(5) *Indirect cost* means any cost not directly identified with a single final cost objective, but identified with two or more final cost objectives or with at least one intermediate cost objective.

(6) *Indirect cost pool* means a grouping of incurred costs identified with two or more cost objectives but not specifically identified with any final cost objective.

CAS 402-30 (italics in original).

[10] Similarly Random House defines "cost" as "the price paid to acquire, produce, accomplish, or maintain anything . . . an outlay or expenditure of money, time, labor, trouble . . . to require the payment of (money or something else of value) in an exchange." *Random House Webster's Unabridged Dictionary* 457 (1998) (emphasis added). The Oxford English Dictionary defines cost as "[t]hat which must be given or surrendered in order to acquire, produce, accomplish, or maintain something; the price paid for a thing." 3 *Oxford English Dictionary* 988 (2d ed. 1989).

860 F.2d 420, 422 (Fed. Cir. 1988) (citing FASB Concept Statement No. 3, which provides "[c]ost is the sacrifice incurred in economic activities—that which is given up or foregone to consume, to save, to exchange, to produce, etc.").

In addition to dictionary definitions, clarity in the term "cost" as used in CAS may also be provided in related regulations, such as FAR. FAR provides the general regulatory scheme for contracts with the federal government and "[the] policies and procedures for applying the Cost Accounting Standards Board (CASB) rules and regulations . . . to negotiated contracts and subcontracts." 48 C.F.R. § 30.000 (2001); *see also* Lane K. Anderson, *Accounting for Government Contracts—Cost Accounting Standards* § 1.06 (2002). Thus, the usage of the word "cost" in FAR is instructive of its usage in CAS. The definitions section of FAR defines "material costs" as "includ[ing] the costs of such items as raw materials, parts, sub-assemblies, components, and manufacturing supplies, whether *purchased or manufactured* by the contractor, and may include such collateral items as inbound transportation and intransit insurance." 48 C.F.R. § 31.205-26 (2001) (emphasis added).

Thus, both standard dictionaries and FAR define "cost" or "material cost" to include the outlay for materials "purchased." The standard dictionaries do not define "purchase" with any precision.[11] Nor does the FAR or CAS itself. However, in addition to dictionaries, this court has recognized that the Uniform Commercial Code (U.C.C.) is useful for determining "the ordinary commercial meaning of terms." *Group One, Ltd. v. Hallmark Cards, Inc.*, 254 F.3d 1041, 1047-48, 59 USPQ2d 1121, 1126 (Fed. Cir. 2001) (citing *Enercon GmbH v. Int'l Trade Comm'n*, 151 F.3d

[11] Webster's, for example, defines "purchase," in relevant part, as "to obtain (as merchandise) by paying money or its equivalent: buy for a price." *Webster's* at 1844.

1376, 1382, 47 USPQ2d 1725, 1729 (Fed. Cir. 1998)). In order to determine whether there has been a purchase, we look to see whether there has been a "sale" by the parts suppliers to Pratt. The U.C.C. defines "sale" as "*the passing of title from the seller to the buyer for a price*." U.C.C. § 2-106 (1989) (emphasis added). The point in time when title passes may be defined by explicit agreement of the parties. U.C.C. § 2-401(2) (1989). Contrary to the Board's finding that "Pratt does not take title to the collaboration parts," *United Techs.*, 01-2 BCA 31,592, at 50, Pratt's witness confirmed that "[t]itle, as far as Pratt & Whitney is concerned, in order to be able to convey title to the engine when it sells it to the customer, that is an instantaneous passage of title from the collaborators to Pratt & Whitney at that moment or instant in time, if you will." (Tr. at 4-103-04.) Thus, there is no question but that Pratt does obtain title to the parts.

Further, Pratt paid a "price" for the parts. It became bound by the obligation to pay the collaborators' share of revenue just prior to its transfer of parts to a purchaser. The Board noted that all of the collaboration agreements save one "provide[d] that the sharing of gross revenues from the sale of engines and parts will be '*in consideration of* the parts manufactured.'" *United Techs.*, 01-2 BCA ¶ 31,592, at 15 (emphasis added). The contracts also expressly linked the receipt of revenue share payments to the delivery of a collaborator's program share of production.[12] The fact that a

---

[12] "[t]he parties recognize that such sharing of revenues is acceptable only if [the collaborator] produces and delivers its Program Share of production" (J.A. at 7570); "[t]he parties agree that any sharing of revenues is conditional upon Collaborator's delivery of Parts in accordance with section 4" (J.A. at 7706); "[t]he parties recognize that such sharing of revenues is acceptable only if the parties produce and deliver their Program Share of production" (J.A. at 7508); and "[a]s a general principle, the parties recognize that such sharing of revenues is acceptable only if [the collaborator] delivers its Program Share of production" (J.A. at 7302).

particular revenue share was not assigned as a matter of internal accounting to individual parts and that the revenue share per part during any particular time period might have been greater or lesser depending on a variety of factors did not prevent the payments from constituting a price. Thus, the transactions constituted a sale, wherein title passed from the foreign collaborators to Pratt and Pratt became obligated to pay a price to the foreign collaborators representing the revenue share.[13] The express language of Pratt's contracts, which make clear that the parts suppliers are "independent contractors" of Pratt, supports this conclusion.[14] In short, we

---

[13] CAS provides that the pertinent time for measuring the amount of cost is the time of production. *See* CAS 41 o.30(a)(3) (defining "[c]ost input [as] the cost, except GM expenses, which for contract costing purposes is allocable to the *production of goods and services*") (emphasis added). Indeed, the CAS Board rejected a proposal to use "cost of sales" for cost allocation because "[t]he use of a cost of sales base can result in unwarranted shifting of costs between different types of final cost objectives." 41 Fed. Reg. 16,136 (Apr. 16, 1976). "Cost of sales is the amount that represents the cost [to the seller] of products sold in a particular period." (Tr. 9-151.) Thus, the CAS Board rejected using the cost to the seller of products sold "in a particular time period" as an allocation base, and instead required that the "input cost" (the cost at the time of production) be used in the allocation base. The cost of a part thus must be measured as of the time it is used in production. The fact that the cost of a part used in production may be calculated based on a portion of Pratt's sales price is irrelevant. We see no inconsistency between CAS 410.30(a)(3) and the result that we reach here—treating the revenue share attributable to a particular part as a material cost.

[14] The contracts provide, for example:

> It is understood that each party is an independent contractor and that all persons engaged in work under this Agreement who are supplied by any party are the supplying party's employees and will in no sense be employees of the other party. The parties agree that no party will have the right to act as the agent or legal representative of the other, nor shall this Agreement establish or be deemed to constitute any partnership between the parties thereto.

United Techs., 01-2 BCA ¶ 31,592, at 16.

find the terms "cost" and "material cost" as used in CAS to be clear and unambiguous, and to include the revenue share payments made by Pratt for the parts under the collaboration agreements.

Indeed a contrary result would be difficult to square with the overall purpose of CAS. The use of costs for allocation bases under CAS is predicated on the concept of costs being representative of "the activity being managed or supervised." CAS 418-50(d)(2). Thus, it is important that "all significant elements of the selected base . . . be included." *Id.* In order for the material cost base provided by CAS 418-50(d)(2)(iv) to be representative of the activity to which those costs are directed (*i.e.*, the beneficial or causal relationship between the indirect cost pool and the benefiting cost objective), it is clear that in general the cost input must represent the entire cost input. Thus, the CAS requirement that costs represent the activity being performed requires that the cost of the collaboration parts be accounted for in distributing indirect costs to final cost objectives. Excluding this significant element from the calculation of overhead allocation bases would cause a substantial distortion in overhead allocation.

III

However, Pratt urges that we should not focus on whether Pratt, as a technical matter, "purchases" the parts, but rather on the "economic substance" of the transaction, which it argues was in economic substance a joint venture between Pratt and the foreign collaborators rather than a sale from the parts suppliers to Pratt. Pratt does not (and could not) argue that the collaboration agreements formed legal entities comprising joint ventures, but rather that: "the collaborations involve sharing of risks, costs and rewards of the commercial jet engine programs *in essentially the same way that joint venturers share risks and rewards.*" (Appellee's Br. at 22) (emphasis added). The Board agreed. Alternatively, Pratt argues that the arrangements should be treated as in substance

"consignments," even though they did not qualify as legal consignments. Again the Board agreed, stating that the "collaboration parts are like consignment parts." *United Techs.*, 01-2 BCA 31,592, at 50.[15]

At first blush it might seem odd to argue that the traditional definitions of "cost" should be ignored in favor of an "economic substance" approach, but Pratt argues that because the term "cost" is not defined under CAS, the generally accepted accounting principles (GAAP) apply, and that GAAP requires a "substance over form" approach.

Pratt's argument has a number of fatal defects.

First, GAAP applies only when CAS itself does not provide the answer. The FAR provides that "[t]he contractor's method of allocating indirect costs shall be in accordance with standards promulgated by the CAS Board, if applicable to the contract; *otherwise, the method shall be in accordance with generally accepted accounting principles which are consistently applied.*" 48 C.F.R. § 31.203(d) (2001) (emphasis added); see also 48 C.F.R. § 31.201-2(a)(3) (2001) (stating that for determinations of allowability "[s]tandards promulgated by the CAS Board, if applicable [are to be applied]; otherwise, generally accepted accounting

---

[15] The Board's conclusion in this case, distinguishing a Fifth Circuit case, *Wesgo Div. of GTE Prod. Corp. v. Harrison (In re Sitkin Smelting & Refining Inc.)*, 648 F.2d 252 (5th Cir.1981), rested on the Board's erroneous factual premise that Pratt did not obtain title to the collaboration parts. *United Techs.*, 01-2 BCA ¶ 31,592, at 50. In *Wesgo*, the court distinguished between a sale and a bailment based, in part, on the passage of title. 648 F.2d at 254. Similarly, *Fowler v. Pennsylvania Tire Co.*, 326 F.2d 526 (5th Cir. 1964), cited by Pratt on appeal as distinguishing between a sale and a consignment, is to no avail, in that the consignee in that case did not obtain title. *Id.* at 532. In short, the very court of appeals consignment cases cited by the appellee and the Board appear to recognize that if title passes to the purported consignee, then sale occurred.

principles and practices appropriate to the particular circumstances"). Thus, GAAP is an accepted supplement to CAS, but only where CAS itself does not decide the issue. The supplementary nature of GAAP is also recognized in the literature:

> This hierarchy places the CAS Board's standards, rules and regulations first. If not in the CAS, the second point of the hierarchy is the cost principles of the FAR and agency FAR supplements. If nothing exists in the cost principles coverage, Generally Accepted Accounting Principles (GAAP) govern.

Lane K. Anderson, *Accounting for Government Contracts—Cost Accounting Standards* § 1.06 (2002); *see also* Margaret M. Worthington & Louis P. Goldsman, *Contracting with the Federal Government* 150 (4th ed. 1998) ("Considerable weight is generally given to GAAP when more definitive accounting treatment is not prescribed in the acquisition regulations, CAS, or the contract itself."). Here, as we have discussed, CAS does provide the answer when the terms "costs" and "material costs" are given their ordinary meaning.[16]

Second, contrary to Pratt's arguments that GAAP requires the use of substance over form, we are not persuaded that GAAP itself, as a general matter, requires the rejection of

---

[16] Our decision in *Riverside*, 860 F.2d at 422, accepting the parties' agreement that GAAP was pertinent to the interpretation of the term "cost" in earlier procurement regulations is not to the contrary. Such a decision, merely accepting the parties' agreement, is not binding on later panels. *See Webster v Fall*, 266 U.S. 507, 511 (1925) ("Questions which merely lurk in the record, neither brought to the attention of the court nor ruled upon, are not to be considered as having been so decided as to constitute precedents."); *Rhone-Poulenc Agro S.A v. DeKalb Genetics Corp.* 284 F.3d 1323, 1334 (Fed. Cir. 2001) (*en banc* order vacating panel decision) ("The en banc court has decided that, because . . . the parties' not having contested the issue, [the prior case] is not binding authority.").

legal form in favor of "economic substance." [17] In support of its purported "substance over form" principle, appellee cites SAS No. 69 (Appellee's Br. at 15), though as the Board noted, this document is not itself part of the GAAP hierarchy, but rather is part of the generally accepted auditing standards (GAAS), United Techs., 01-2 BCA 31,592, at 4. SAS No. 69 provides:

> Generally accepted accounting principles recognize the importance of reporting transactions and events in accordance with their substance. The auditor should consider whether the substance of transactions or events differs materially from their form.
>
> * * *
>
> Because of developments such as new legislation or the evolution of a new type of business transaction, there sometimes are no established accounting principles for reporting a specific transaction or event. *In those instances, it might be possible to report the event or transaction on the basis of its substance by selecting an accounting principle that appears appropriate when*

---

[17] GAAP comprises a hierarchy of different sources. The Board described the GAAP hierarchy as follows:

> Statement on Auditing Standards (SAS) No. 69, issued by the Auditing Standards Board of the American Institute of Certified Public Accountants (AICPA) in 1992, defines the most authoritative pronouncements (*i.e.*, the top level) of the GAAP hierarchy as "Established Accounting Principles." These include Financial Accounting Standards Board (FASB) Statements and Interpretations, Accounting Principles Board (APB) Opinions, and AICPA Accounting Research Bulletins (tr. 2/144). At the lower level in the GAAP hierarchy is "Other Accounting Literature," which includes such things as FASB Statements of Financial Accounting Concepts, APB Statements, International Accounting Standards Committee Statements, accounting textbooks, etc.

United Techs., 01-2 BCA ¶ 31,592, at 3-4; *see also* Worthington & Goldsman, *supra* at 149-50.

> *applied in a manner similar to the application of an established principle to an analogous transaction or event.*

SAS 69.09 (1992) (emphasis added). This equivocal statement that "it might be possible" is far from a mandate to disregard the form of a transaction for accounting purposes.

Appellee also relies on APB Statement No. 4 from the lower level GAAP hierarchy as "emphasiz[ing] the economic substance of events even though the legal form may differ." (Appellee's Br. at 15.) That statement provides in relevant part: "Substance Over Form. Although financial accounting is concerned with both the legal and economic effects of transactions and other events and many of its conventions are based on legal rules, the economic substance of transactions and other events are *usually emphasized* when the economic substance differs from the legal form." APB Statement No. 4 at ¶ 35 (italics in original, emphasis added). The statement that economic substance is "usually emphasized" fails to support Pratt's argument of its required application.

To bolster the weak arguments provided by the GAAP documentation, Pratt relies on its GAAP experts that testified before the Board, arguing that "[a]ll of the GAAP experts agreed that under GAAP, accounting *must* follow the economic substance of the transaction." (Appellee's Br. at 29) (emphasis added). The cited testimony is in fact quite equivocal. Pratt's expert, Homgren, stated at the trial that: "I would say some arguments might be offered to recognize [a revenue share payment] as a cost—but in my opinion, it's preferable and more accurate to account for it as a reduction in revenue." (Tr. at 7-84.) Another Pratt expert, William Keevan, merely testified that the cost treatment of revenue shares was an "acceptable method." (Tr. at 9-124.)

Further undermining Pratt's claim that "substance over form" is a mandatory accounting principle is the fact that Pratt accounted for the revenue share payments for public

financial reporting purposes as a cost from the inception of the collaboration agreements until July 2, 1996, after the present issue arose. The prior accounting practice was purportedly in accordance with GAAP, which provided the basis for Pratt's financial reporting. *See* Anderson, *supra*, § 1.01[2].

Third, and finally, even under Pratt's own view of GAAP, GAAP does not provide any meaningful guidance as to what constitutes the "substance" of a transaction or the circumstances under which "substance" treatment is appropriate. Even Pratt's GAAP experts were forced to speculate about a "spectrum of relationships" where "substance" treatment might be appropriate and to concede that there is "no easy [sic] to quantify metrics that can be applied in each case." (Tr. at 6-20); *see also* FASB Concepts Statement No. 2, Qualitative Characteristics of Accounting Information ("Substance over form is . . . a rather vague idea that defies precise definition."). The adoption of such a vague rule, which depends on experts' judgments as to the "substance" of a particular transaction, and the views of experts as to the appropriateness of using the "substance" approach in any particular case, is inconsistent with the basic principles of government contracts accounting. The CAS rules "are designed to achieve 'uniformity and consistency' in allocating costs to government contracts." *Boeing*, 298 F.3d at 1283 (emphasis added) (citing *Martin Marietta*, 13 F.3d at 1565). The first standard in CAS is entitled "Cost accounting standard—consistency in estimating, accumulating and reporting costs." CAS 401. This standard provides:

> *Consistency in the application of cost accounting practices is necessary to enhance the likelihood that comparable transactions are treated alike.* With respect to individual contracts, the consistent application of cost accounting practices will facilitate the preparation of reliable cost estimates used in pricing a proposal and their comparison with the costs of performance of the

> resulting contract. *Such comparisons provide one important basis for financial control over costs during contract performance and aid in establishing accountability for cost in the manner agreed to by both parties at the time of contracting.*

CAS 401-20 (emphases added). We have previously held that the question of allocation cannot depend on "amorphous inquir[ies]" such as Pratt proposes here. *Boeing*, 298 F.3d at 1284. Because the purported GAAP principle of substance over form provides no meaningful guidance, it does not permit consistent application, and cannot be used to define costs for purposes of CAS.

IV.

In addition to its reliance on GAAP, Pratt also relies upon cases from the area of tax law in which the Supreme Court looked beyond the form of a transaction to its substance for tax purposes. These cases provide no assistance to Pratt. They merely hold that, while the taxpayer is bound by the form of the transaction that it has selected, the taxpayer's use of a particular form will not prevent the government from looking to its substance. Pratt first cites for this proposition *Frank Lyon Co. v. United States*, 435 U.S. 561 (1978), where the Supreme Court noted that "[i]n applying their doctrine of substance over form, the Court has looked to the objective economic realities of a transaction rather than to the particular form the parties employed." *Id.* at 573. The Supreme Court looked to the substance of a transaction to determine if a sale-and-leaseback arrangement was a "simple sham" that did not merit treatment as such for tax purposes. *Id.* The Court found that the transaction was not a simple sham, and therefore, that the government could not disregard the form of the transaction for tax purposes. *Id.* at 580. As the Court made clear, however, the doctrine applies "[i]n the field of taxation, [where] administrators of the laws and the courts are concerned with substance and realities, and formal written

documents are not rigidly binding." *Id.* at 573 (citations omitted); *see also United Parcel Serv. of Am., Inc. v. Comm'r of Internal Revenue*, 254 F.3d 1014 (11th Cir. 2001).

There is a question as to what extent this doctrine should apply at all in the field of government contracts. But, even in the tax field, our attention has not been drawn to any cases holding that the doctrine permits the taxpayer, having selected the form of the transaction, to recharacterize the transaction according to its purported substance. Indeed, our sister circuits have held the opposite. *Rogers v. United States*, 281 F.3d 1108, 1118 (10th Cir. 2002); *Estate of Bean v. Comm'r of Internal Revenue*, 268 F.3d 553, 557 (8th Cir. 2001). The Tenth Circuit noted that while "the Commissioner must have the ability to challenge the taxpayer's description of the relevant facts," the taxpayer has no such right. *Rogers*, 281 F.3d at 1118. There, the court refused to permit the taxpayer "to characterize a substantive transaction as one thing rather than another and force the Commissioner—and this court—to accept the automatic consequences of the characterization." *Id.* In short, it was "*not up to the taxpayers to have the final say on how [a transaction] is characterized.*" *Id.* (emphasis added). So too the Eighth Circuit has rejected a taxpayer's efforts to recharacterize a transaction based on its substance, holding that "[o]nce chosen, *the taxpayers are bound by the consequences of the transaction as structured*, even if hindsight reveals a more favorable tax treatment. *Bean*, 268 F.3d at 557 (emphasis added) (citing *Grojean v. Comm'r of Internal Revenue*, 248 F.3d 572, 576 (7th Cir. 2001)).

Thus, even if the "substance over form" doctrine from the tax field were applied in the field of government contracts to recharacterize a contractor's commercial arrangements, Pratt would be bound by the consequences of the commercial transaction as it chose to structure it, *i.e.*, as the purchase of parts from the foreign parts suppliers. It would not

be permitted to recharacterize the commercial transaction as a joint venture or consignment. If at all, it is the government that could rely on the substance over form doctrine to challenge "sham" transactions in a contractor's commercial operations.[18]

V

Pratt argues that including the price paid for collaboration parts for the calculation of bases for overhead allocation is inequitable. Pratt first argues that it is inequitable to require Pratt to account for its collaboration parts when one of its competitors was given different treatment. That a defense contracting official may have reached a contrary result based on similar facts does not bind the government or this court.

Pratt also argues that CAS does not include Government Furnished Material (GFM) or Government Furnished Equipment (GFE) as a cost and that it is inequitable to include a "cost" for collaboration parts for overhead allocation while excluding the value of GFM and GFE. Our task, however, is to interpret CAS, not to rewrite it to provide an equitable result.

VI

A final argument raised by Pratt before the Board was that the government is estopped from contesting Pratt's determination that the revenue payments for parts acquired under the collaboration requirements did not constitute costs. This is said to be so because of the government's prior acceptance of Pratt's treatment of those items. *United Techs.*, 01-2 BCA 31,592, at 53. Based on its interpretation of "cost," the Board did not reach this issue. *Id.* This question,

---

[18] See Defense Contract Audit Agency Contract Audit Manual 7-1801, 1807 instructing government contracts auditors to "[d]etermine not only the form of the business organization but the actual relationship (substance) between the venturing contractors").

therefore, remains open on remand. Adjudication of the estoppel issue must proceed under the "well settled [rule] that the Government may not be estopped on the same terms as any other litigant." *Heckler v. Cmty. Health Servs. of Crawford County, Inc.* 467 U.S. 51, 60 (1984). Beyond a mere showing of acts giving rise to an estoppel, Pratt must show "*affirmative misconduct* [as] a prerequisite for invoking equitable estoppel against the government." *Zacharin v. United States*, 213 F.3d 1366, 1371, 55 USPQ2d 1047, 1051 (Fed. Cir. 2000) (emphasis added).

VII

In summary, we hold that the CAS regulations define material costs in terms of items purchased for a price, and that the collaboration parts satisfy this definition. It is irrelevant that GAAP may allow Pratt to look to the supposed "substance" of the transactions and to treat the purchase arrangements as joint ventures or consignments. GAAP cannot trump CAS, and allowing a contractor to recharacterize transactions based on a "substance over form" approach is fundamentally inconsistent with CAS, which requires consistency and uniformity of approach. Thus, under CAS 410, 418 and 420, in allocating G&A, B&P, and IR&D, Pratt was required to include a cost for collaboration parts in its allocation bases.

CONCLUSION

For these reasons we hold that Pratt purchased the parts from its foreign parts suppliers, and that the revenue share payments comprise costs for those parts. Accordingly, this case is vacated and remanded for further proceedings consistent with this opinion.[19]

COSTS

No costs.

VACATED AND REMANDED

---

[19] To the extent that Pratt may argue that some portion of the revenue shares represented payments for items other than parts, Pratt may provide that evidence on remand. The burden is upon Pratt, however, to show that the revenue share payments included payments beyond that for the collaboration parts. The question of the propriety of removing Drag from the indirect cost pool is also not before us on appeal, and remains open on remand.

APPENDIX B

UNITED STATES COURT OF APPEALS
FOR THE FEDERAL CIRCUIT

[Filed Apr 23 2003]

02-1071

DONALD H. RUMSFELD, SECRETARY OF DEFENSE,
Appellant,

v.

UNITED TECHNOLOGIES CORPORATION, PRATT & WHITNEY,
Appellee.

ORDER

A combined petition for panel rehearing and for rehearing en banc having been filed by the APPELLEE, and a response thereto having been invited by the court and filed by the court and filed by the APPELLANT, and the petition for rehearing having been referred to the panel that heard the appeal, and thereafter the petition for rehearing en banc and response having been referred to the circuit judges who are in regular active service,

UPON CONSIDERATION THEREOF, it is

ORDERED that the petition for panel rehearing be, and the same hereby is, DENIED and it is further

ORDERED that the petition for rehearing en banc be, and the same hereby is, DENIED.

The mandate of the Court will issue on April 30, 2003.

For the Court,

/s/ Jan Horbaly
Jan Horbaly, Clerk

Dated: April 23, 2003

cc: Patricia M. McCarthy
Kent R. Morrison
C. Stanley Dees, Clarence T. Kipps
Richard C. Johnson

APPENDIX C

ARMED SERVICES BOARD OF CONTRACT APPEALS

ASBCA Nos. 47416, 50453, 50888

Appeals of—

United Technologies Corporation, Pratt & Whitney

Under Contract No. F33657-84-C-2263 And all CAS Covered Contracts

APPEARANCES FOR THE APPELLANT:

Roger N. Boyd, Esq.
Kent R. Morrison, Esq.
George D. Ruttinger, Esq.
Matthew S.R. Bewig, Esq.
Joseph W.C. warren, Esq.
Crowell & Moring LLP
Washington, DC

APPEARANCES FOR THE GOVERNMENT:

Jerome C. Brennan, Esq.
Chief Trial Attorney
JeanMarie Corbosiero Fans, Esq.
Raymond C. Cloutier, Esq.
Fadette Berthold, Esq.
Trial Attorneys
Defense Contract Management
Agency East
Boston, MA

OPINION BY ADMINISTRATIVE JUDGE PARK-CONROY

At issue in these consolidated appeals is whether revenue share payments made by appellant United Technologies Corporation (UTC), Pratt & Whitney (Pratt) to its foreign collaborators constitute a cost for parts provided by the collaborators which must be included in Pratt's indirect cost allocation bases pursuant to Cost Accounting Standards (CAS) 410, 418, and 420. Because we conclude that these payments are not a cost for parts, we sustain the appeals docketed as ASBCA Nos. 47416 and 50453. The related appeal docketed as ASBCA No. 50888 is denied.

ASBCA No. 47416 is an appeal from a deemed denial of Pratt's demand for a final decision regarding the contracting officer's Final Finding of Noncompliance with CAS 410, 418, and 420 issued on 24 January 1992, and retroactive to 1 January 1984. ASBCA No. 50453 is an appeal from the contracting officer's final decision issued on 2 December 1996 asserting a Government claim in the amount of $260,290,111 including interest, for the period 1984 through 1995, based upon Pratt's alleged noncompliance with CAS 410, 418, and 420. ASBCA No. 50888 is an appeal from the contracting officer's 7 July 1997 decision denying Pratt's counterclaim for $34,251,000 asserting that the Government's 2 December 1996 final decision constitutes a breach of an 8 February 1991 settlement agreement regarding the CAS 418 compliance issues (for the period 1982 through 1987). Only entitlement is before us.

FINDINGS OF FACT

I. The Relevant CAS Requirements

These appeals raise issues associated with CAS 410, 418, and 420. *See* 48 C.F.R. §§ 9904.410, 9904.418, and 9904.420 (2000).

The purpose of CAS 410, ALLOCATION OF BUSINESS UNIT GENERAL AND ADMINISTRATIVE EXPENSES TO FINAL COST OBJECTIVES, is "to provide criteria for the allocation of business unit general and administrative (G&A) expenses to business unit final cost objectives based on their beneficial or causal relationship." CAS 410.20. It requires that G&A expenses be allocated to final cost objectives by means of a "cost input base." Under CAS 410.30(a)(3), *"Cost input* means the cost, except G&A expenses, which . . . is allocable to the production of goods and services during a cost accounting period." As further clarified by CAS 410.500, cost input includes expenses which are excluded from the G&A expense pool, and are not part of a combined G&A pool using the same allocation base.

Under CAS 410.30(a)(5) a "*Final cost objective* means a cost objective which has allocated to it both direct and indirect costs . . . ." CAS 410.40(b)(1) provides that the G&A expense pool "shall be allocated to final cost objectives . . . by means of a cost input base representing the total activity of the business unit" and that "[the cost input base selected shall be the one which best represents the total activity of a typical cost accounting period." CAS 410.50(d)(1) provides that "[t]he cost input base used to allocate the G&A expense pool shall include all significant elements of that cost input which best represent the total activity of the business unit."

The purpose of CAS 420, ACCOUNTING FOR INDEPENDENT RESEARCH AND DEVELOPMENT (IR&D) COSTS AND BID AND PROPOSAL (B&P) COSTS, is "to provide criteria for the accumulation of [IR&D] costs and [B&P] costs and for the allocation of such costs to cost objectives based on the beneficial or causal relationship between such costs and cost objectives." It requires that IR&D and B&P costs be allocated on the same basis as G&A expenses. Specifically, CAS 420.50(f)(2) requires that IR&D/B&P costs "shall be allocated to all final cost objectives of the business unit by means

of the same base used by the business unit to allocate its [G&A] expenses in accordance with [CAS 410.50] . . . ."

On 15 May 1980, the CAS Board promulgated CAS 418, ALLOCATION OF DIRECT AND INDIRECT COSTS, which had an effective date of 20 September 1980 and an applicability date at Pratt of 1 January 1982. The purpose of CAS 418 is "to provide for consistent determination of direct and indirect costs; to provide criteria for the accumulation of indirect costs, . . .; and, to provide guidance relating to the selection of allocation measures based on the beneficial or causal relationship between an indirect cost pool and cost objectives." CAS 418.50(b)(1) requires that overhead costs be accumulated in pools that are homogeneous in their relationship to final cost objectives based upon the "beneficial and causal relationship" between the pooled costs and the cost objectives. CAS 418.50(d)(1) requires that "the base selected to measure the allocation of the pooled costs to cost objectives shall be a base representative of the activity being managed or supervised" and 418.50(d)(2) requires that: "[a]ll significant elements of the selected base shall be included." CAS 418.50(d)(2)(iv) further provides that "[a] material cost base is appropriate if the activity being managed or supervised is a material related activity."

II. Generally Accepted Accounting Principles and FAR Provisions

The CAS Board's RESTATEMENT OF OBJECTIVES, POLICIES AND CONCEPTS, issued in May 1977, states that the "Cost Accounting Standards provide for the definition and measurement of costs, . . ." (Shapiro report tab 8 at 4031). The DEFINITIONS section of the CAS regulations (§ 301), however, does not include a definition of the word "cost." *See* 48 C.F.R. § 9903.301. The CAS Board's RESTATEMENT recognizes that "[a] number of authoritative bodies have been established to issue pronouncements affecting accounting and

financial reporting . . . [and] give[s] careful consideration to the[se] pronouncements" (Shapiro report tab 8 at 4034-35).

The authoritative principles that govern how financial reporting statements should be prepared are referred to as generally accepted accounting principles (GAAP). There is a hierarchy in the principles that comprise GAAP. (Tr. 2/143-45)

Statement on Auditing Standards (SAS) No. 69, issued by the Auditing Standards Board of the American Institute of Certified Public-Accountants (AICPA) in 1992, defines the most authoritative pronouncements (i.e., the top level) of the GAAP hierarchy as "Established Accounting Principles," These include the Financial Accounting Standards Board (FASB) Statements and Interpretations, Accounting Principles Board (APB) Opinions, and AICPA Accounting Research Bulletins (tr. 2/144). At the lower level in the GAAP hierarchy is "Other Accounting Literature," which includes such things as FASB Statements of Financial Accounting Concepts, APB Statements, International Accounting Standards Committee Statements, accounting textbooks, etc. (R4, tab 634; tr. 7/88-90).

While not part of the hierarchy of GAAP because it relates to auditing standards (tr. 2/225-26), AICPA SAS No. 69 is nevertheless relevant in the following respects:

> 6. Generally accepted accounting principles recognize the importance of reporting transactions and events in accordance with their substance. The auditor should consider whether the substance of transactions or events differs materially from their form.
>
> . . . .
>
> 9. Because of developments such as new legislation or the evolution of a new type of business transaction, there sometimes are no established accounting principles

> for reporting a specific transaction or event. In those instances, it might be possible to report the event or transaction on the basis of its substance by selecting an accounting principle that appears appropriate when applied in a manner similar to the application of an established principle to an analogous transaction or event.

(R4, tab 634)

FASB Statement No. 48, which is top level GAAP, establishes six criteria that must be met for a sale to be recognized. It provides:

> 6. If an enterprise sells its product but gives the buyer the right to return the product, revenue from the sales transaction shall be recognized at time of sale only if *all* of the following conditions are met:
>
> a. The seller's price to the buyer is substantially fixed or determinable at the date of sale.
>
> b. The buyer has paid the seller, or the buyer is obligated to pay the seller and the obligation is not contingent on resale of the product.
>
> c. The buyer's obligation to the seller would not be changed in the event of theft or physical destruction or damage of the product.
>
> d. The buyer acquiring the product for resale has economic substance apart from that provided by the seller.
>
> e. The seller does not have significant obligations for future performance to directly bring about resale of the product by the buyer.
>
> f. The amount of future returns can be reasonably estimated . . . .

(R4, tab 629 at 480-81 (notes omitted))

Also of relevance from the top level GAAP hierarchy, by analogy, is APB Opinion No. 21, INTEREST ON RECEIVABLES AND PAYABLES, set which provides that the presumption that the rate of interest stipulated by the parties is "fair and adequate compensation," but cautions that the presumption "must not permit the form of the transaction to prevail over its economic substance . . . ." (App. br. vol. 4, attach.1 at 262).

"Other Accounting Literature" can be consulted in the absence of authoritative pronouncements (R4, tab 634 at 5). Of relevance are FASB Statements of Financial Accounting Concepts Nos. 2, 5 and 6. FASB Concepts Statement No. 2, QUALITATIVE CHARACTERISTICS OF ACCOUNTING INFORMATION, states in Appendix B, ¶ 160:

> Substance over form is an idea that has its proponents, but it is not included [as a general principle] because it would be redundant.
>
> The quality of reliability and, in particular, of representational faithfulness, leaves no room for accounting representations that subordinate substance to form.
>
> Substance over form is, in any case, a rather vague idea that defies precise definition.

(App. br. vol. 4, attach. 2; tr. 3/62-63)

FASB Concepts Statement No. 5, RECOGNITION AND MEASUREMENT IN FINANCIAL STATEMENTS OF BUSINESS ENTERPRISES, discusses "net income," "profit," and "earnings" as follows:

> Earnings focuses on what the entity has received or reasonably expects to receive for its output (revenues) and what it sacrifices to produce and distribute that output (expenses). Earnings also includes results of the entity's incidental peripheral transactions and some

> effects of other events and circumstances stemming from the environment (gains and losses).
>
> Present practice accepts a variety of terms for net income, and the [FASB] anticipates that net income, profit, net loss, and other equivalent terms will continue to be used in financial statements as names for earnings.

(Siegel report at ¶¶ 28, 29)

FASB Concepts Statement No. 6, ELEMENTS OF FINANCIAL STATEMENTS, defines the term "asset" in paragraph 25 as "probable future economic benefits obtained or controlled by a particular entity as a result of past transactions or events" (tr. 11/7). The three essential characteristics of assets are described in paragraph 26 as follows:

> . . . (a) it embodies a probable future benefit that involves a capacity, singly or in combination with other assets, to contribute directly or indirectly to future net cash inflows, (b) a particular entity can obtain the benefit and control others' access to it, and (c) the transaction or other event giving rise to the entity's right to or control of the benefit has already occurred.

And in paragraph 168 it is further explained that:

> . . . An item does not qualify as an asset . . . of an entity if . . . (a) the item involves no future economic benefit, (b) the item involves future economic benefit, but the entity cannot obtain it, or (c) the item involves future economic benefit that the entity may in the future obtain, . . .

(R4, tab 632)

Footnote 19 of paragraph 26 defines "cost" as "the sacrifice incurred in economic activities—that which is given up or forgone to consume, to save, to exchange, to produce, ..." Paragraph 78 defines "revenues" as "inflows or other enhancements of assets of an entity or settlements of its liabilities (or a combination of both) from delivering or

producing goods, rendering services, or other activities that constitute the entity's ongoing major or central operations." Paragraph 80 defines "expenses" as "outflows or other using up of assets or incurrences of liabilities (or a combination of both) from delivering or producing goods[], rendering services, or carrying out other activities that constitute the entity's ongoing major or central operations." (R4, tab 632)

Also from the lower level "Other Accounting Literature" GAAP are APB Statement No. 4, International Accounting Standards Committee Statement 31, a textbook, JAN R. WILLIAMS ET AL., INTERMEDIATE ACCOUNTING (5th ed. 1995), the Defense Contract Audit Agency (DCAA) Audit Manual and General Accounting Office (GAO) Reports.

APB Statement No. 4, BASIC CONCEPTS AND ACCOUNTNG PRINCIPLES UNDERLYING FINANCIAL STATEMENTS OF BUSINESS ENTERPRISES, is a research paper study. Paragraph F-12, *Substance over form*, of APB Statement No. 4, provides:

> . . . Financial accounting emphasizes the economic substance of events even though the legal form may differ from economic substance and suggest different treatment. . . .
>
> Usually the economic substance of events to be accounted for agrees with the legal form. Sometimes, however, substance *and form* differ. Accountants emphasize the substance of events rather than their form so that the information provided better reflects the economic activities represented.

(R4, tab 623 at 461)

International Accounting Standards Committee Statement 31, FINANCIAL REPORTING OF INTERESTS IN JOINT VENTURES, provides the most analogous guidance for the collaboration agreements. It applies "REGARDLESS OF THE STRUCTURES OR

FORMS UNDER WHICH THE JOINT VENTURE ACTIVITIES TAKE PLACE" and provides in relevant part:

> 8. The operation of some joint ventures involves the use of the assets and other resources of the venturers rather than the establishment of a corporation, partnership or other entity, or a financial structure that is separate from the venturers themselves. Each venturer uses its own property, plant and equipment and carries its own inventories. It also incurs its own expenses and liabilities and raises its own finance, which represent its own obligations. The joint venturers activities may be carried out by the venturer's employees alongside the venturer's similar activities. The joint venture agreement usually provides a means by which the revenue from the sale of the joint product and any expenses incurred in common are shared among the venturers.
>
> 9. An example of a jointly controlled operation is when two or more venturers combine their operations, resources and expertise in order to manufacture, market and distribute jointly a particular product, such as an aircraft. Different parts of the manufacturing process are carried out by each of the venturers. Each venturer bears its own cost and takes a share of the revenue from the sale of the aircraft, such share being determined in accordance with the contractual arrangement.

(R4, tab 635 at 3)

The following statement is included among numerous other comments regarding the "substance over form" issue in the INTERMEDIATE ACCOUNTING textbook:

> SUBSTANCE OVER FORM
>
> Financial accounting is concerned with the legal as well as the economic effects of accountable events. But *when an apparent conflict exists between the economic substance and the legal form of a business transaction,*

> *accountants tend to emphasize economic substance.* [Emphasis in original]

(R4, tab 637 at 55)

The DCAA Contract Audit Manual, in paragraph 7-1807 Determining the Actual Relationship Between the Business Organizations, provides in relevant part:

> The form and substance of a contractor's business organization can significantly influence the allowability and allocability of costs incurred under government contracts. Determine not only the form of the business organization but the actual relationship (substance) between the venturing contractors. . . . Normally, no one factor should be the sole determinant of whether the relationship is a joint venture or more closely resembles a prime contractor/subcontractor relationship.

(Keevan report tab 18)

Additionally, FAR 31.201-2 DETERMINING ALLOWABLITY provides:

> (a) The factors to be considered in determining whether a cost is allowable include the following:
>
> . . . .
>
> (3) Standards promulgated by the CAS Board, if applicable; otherwise, generally accepted accounting principles and practices appropriate to the particular circumstances.

FAR 31.201-5 CREDITS provides that "[t]he applicable portion of any . . . credit relating to any allowable cost and received by or accruing to the contractor shall be credited to the Government either as a cost reduction or by cash refund."

And, FAR 31.203 INDIRECT COSTS provides in relevant part:

> (c) Once an appropriate base for distributing indirect costs has been accepted, it shall not be fragmented by removing individual elements. All items properly includable in an indirect cost base should bear a pro rata share of indirect costs irrespective of their acceptance as Government contract costs. . . .

III. *The Collaboration Programs*

Pratt is an unincorporated Group within UTC (ex. A-18). It manufactures military aircraft engines for the U.S. Government under Contract No. F33657-84-C-2263 and other Government contracts which are subject to cost accounting standards promulgated by the CAS Board. *See* 48 C.F.R. § 9904 (2000).

In addition to manufacturing engines for the U.S. Government, Pratt also manufactures aircraft engines for commercial buyers. In the early 1970s, Pratt began discussions with foreign entities regarding collaborative efforts for the manufacture of its commercial engines, principally to distribute the enormous risk associated with developing new engines and to obtain market access using foreign production facilities and sales (R4, tab 701; tr. 3/162-77). In May of 1973, Pratt signed separate Memoranda of Agreement (MOAs) with Motoren-und Turbinen-Union Muenchen GmbH (MTU) of Germany and Fiat Aviazione Societa Per Azioni (Fiat) of Italy setting forth the principles governing a joint collaboration for the "design, development, production, marketing, product support and after-sales service of a new high bypass ratio turbofan aircraft engine" designated the JT10D engine for "primary application in a short, medium and long range aircraft up to 250 passenger size." The MOAs further acknowledged the parties' recognition that "such a development effort [was] not an

acceptable economic risk for any one of them, and thus require[d] the sharing of effort and financial risk." (R4, tab 659 subtabs 1, 2)

A formal Collaboration Agreement committing the parties to an 18-year effort for the JT10D program was jointly executed by Pratt, MTU and Fiat on 12 July 1977 pursuant to which the parties agreed "to share the benefits and investments and activities" in accordance with fixed percentages representing each party's share of the program (R4, tab 659 subtab 9; tr. 3/184-85). Pratt's share was 83.2%, MTU's was 12.8% and Fiat's was 4% (*id.*; R4, tab 706). The agreement covered the design and development of the JT10D engine through initial Federal Aviation Administration (FAA) certification, including the exchange of technology, production of engines and spares, product support, post certification development and expenses, liability and insurance (R4, tab 659 subtab 9; tr. 4/187-91).

Payment of fees to Pratt for participation in the program was based upon sales (ex. A-5, n. 7). Pratt retained responsibility for the overall program management (R4, tab 659 subtab. 9 at 2-3). Effective 8 February 1983, the parties agreed that the sharing of revenue would be "in accordance with the program shares . . . without regard to the party producing the specific individual parts sold," although the parties recognized that such sharing of revenue was "acceptable only if all parties produce[d] their share of production as specified . . ." (R4, tab 659 subtab 15C at 6). The JT10D program eventually became known as the PW2000 engine series program which included the PW2037 engine (tr. 3/175, 197).

Thereafter, Pratt expanded and refined the collaboration program concept it had initiated with MTU and Fiat. Mr. Loren Stolp, Prat's Vice President and Counsel for Commercial Engine Business, participated in the drafting and negotiation of the collaboration agreements. (Tr. 3/245-48) In

a letter dated 23 May 1984 to Samsung Precision Industries, Co., Ltd. (Samsung), Mr. Stolp described the collaboration concept for the PW4000 engine program as follows:

> [Pratt is] presently working with several qualified suppliers to establish risk sharing participation roles in the PW4000 Program. Our objective is to share approximately ten percent of the program. In concept, a participant in the program will pay his share of all program costs in return for which he will be entitled to the equivalent share of program revenue, subject to adjustment for disproportionate overhead costs such as marketing. The program participant will contribute his manufacturing cost share by supplying the appropriate value of production parts to meet his share of the total program requirements. Selection of these parts will be on the basis of availability and partner desires and capability. As you can see, the risk sharing participant will have a long term share of the total PW4000 business. This share of the business will be sold to the qualified program participant for a fee based on the size of this program share.

(R4, tab 166; tr. 3/222-23, 249-50) He also offered Samsung the possibility of becoming a "conventional supplier of parts for the PW4000 program" (R4, tab 166).

Pratt was very successful in developing its collaborative risk-sharing program concept and executed collaboration agreements with foreign entities for shares ranging from 1% to 21.2% of its JTBD-200, PW2000 and PW4000 engine programs (ex. A-5). The list of collaborators for these programs is as follows:

1. MTU (JT8-200, PW2000 and PW4000 engines) (R4, tabs 659, 661, 673; ex. A-5);

2. Fiat (PW2000 and PW4000 engines) (R4, tabs 659, 663; ex. A-5);

3. Volvo Flygmotor AB (Volvo) (PW2000 and JTBD-200 engines) (R4, tabs 660, 670; ex. A-5);

4. Mitsubishi Heavy Industries, Ltd. (MHI) (PW4000 and JTBD-200 engines) (R4, tabs 662, 671; ex. A-5);

5. Fabrique Nationals Herstal S.A./FN Moteurs S.A. (FN) (PW4000 engine) (R4, tab 664; ex. A-5);

6. Samsung/Samsung Aerospace Industries, Ltd. (PW 4000 engine) (R4, tab 665; ex. A-5);

7. AMS Precision Engineering Pte. Ltd. (AMS)/ Singapore Aircraft Industries (SAI) (PW4000 engine) (R4, tab 668; ex. A-5);

8. N.V. Indivers Interturbine Group Eldim B.V. (Eldim) (PW 4000 engine) (R4, tab 667; ex. A-5);

9. Norsk Jetmotor AISIKongsberg Vapenfabrikk (PW 4000engine) (R4, tab 669; ex. A-5);

10. Kawasaki Heavy Industries, Ltd. (KKI) (PW4000 engine) (R4, tab 666; ex. A-5); and

11. Aeritalia Societa Aerospaziale Italians P.A. (Aeritalia) (PW4000 engine) (R4, tab 672; ex. A-5).

A. *General Terms of the Collaboration Agreements*

The MTU/Fiat collaboration agreement for the PW2000 engine was the model for the subsequent agreements (R4, tab 659 subtab 15; tr. 3/247). All of the agreements contain many complex provisions setting forth the respective duties and responsibilities of the collaborators and defining the benefits and risks each agrees to assume over the duration of the agreements.

1. *Pratt Retains General Responsibility for the Collaboration Programs*

Pratt refers to the collaborators as partners and treats them as such (tr. 3/318). Nevertheless, in general, Pratt exercises

authority and responsibility for the overall management of its engine programs. It is responsible for the direction of effort in the design, development, manufacturing, marketing, certification, sale and/or support of the engine and parts, subject to the specific terms of each collaboration agreement. It determines the pricing of engines and spare parts and all contracts are executed by and in the name of Pratt. The foreign collaborators are not parties to the sales contracts. Pratt collects full payment from the customer for the sale of all engines and spare parts and then distributes net revenue to the collaborators according to their respective program shares. In return, the collaborators pay program entry fees for a percentage share of the program, obtain the right to use Pratt's drawings, technical data and know-how in the manufacture of agreed-upon parts and share program expenses and revenues. (R4, tabs 659-673)

2. *The Collaborators Pay Program Entry Fees*

All but [redacted] require an upfront, non-refundable entry fee in exchange for the right to be "a partner in the program," *i.e.*, to manufacture engine parts designated by Pratt for a particular engine program, to receive its program share of revenue, and to learn and benefit from Pratt's experience in the development, manufacture and marketing of jet engines (ex. A-5, n. 6; tr. 3/251, 274-75, 4/30-31). The program share purchased by a collaborator determines its percentage share of the production requirements, program expenses and revenues (tr. 3/258-59, 263-64).

The program entry fees are substantial; for example, the fee for the [redacted] program was [redacted] for a [redacted] share (tr. 3/272-73). Pratt eventually sold "[redacted]" of the base [redacted] program to foreign collaborators (ex. A-5). Additionally, Pratt has charged catch-up payments to collaborators joining [redacted] program after [redacted] started. Payments also are charged to collaborators increasing their program shares. (Tr. 3/255. 56, 277-78) The program

entry fee approach was also used to fund an incremental improvement to the [redacted] engine program (ex. A-5; tr. 31224-25).

3. *The Collaborators Supply Engine And Spare Parts*

The collaborators are given access to all Pratt drawings, technical data and experience necessary for the manufacture of collaboration parts. The prices of the parts contributed to the engine program by a collaborator are not listed in the agreement; instead, the agreements identify an equivalent engine value and/or a manufacturing target cost (MTC) established at the outset of the program for each part the collaborator is assigned to produce for the program. (R4, tabs 659-673) Pratt typically determines the total production value of the program for a defined period of time by adding the MTC for all of the parts used in manufacturing and testing or as spares (ex. A-15; tr. 3/260-71). As a general rule, the MTC is between [redacted] and [redacted] of the sale price of the part (tr. 3/270).

The number of parts each collaborator is required to contribute to the program effort is determined by its program share. For example, as Mr. Stole explained, if the total production requirement is 100 engines, a collaborator with a 10% share of the program would be required to produce enough parts to equal 10 engines. The actual number of parts required to be the equivalent of 10 engines, in turn, depends upon the MTC and the equivalent engine value of the parts. (Ex. A45; tr. 3/267.68) Any change in the configuration of a part that affects its MTC affects all of the collaborators, not just the collaborator responsible for manufacturing the part (exs. A45, .16; tr. 3/304-09). If a collaborator overproduces a part, the agreement typically requires Pratt to purchase the excess parts at a negotiated price. If a collaborator underproduces apart, Pratt has the option of assigning new parts to the collaborator in the following period. (Tr. 3/268-70)

Pratt issues purchase orders to the collaborators for parts which are then received, stored and moved through the Manufacturing Division (MD)), like other purchased parts (R4, tab 307 at 2515). The collaboration parts are intermingled with and are not segregated from Pratt's other purchased and manufactured parts (R4, tab 407 at ¶ 4).

The collaboration agreements provide that title to the parts furnished to Pratt remains with the collaborator until the parts are delivered to a customer, either as assembled in the engine or as spare parts and that title remains with the collaborator until the parts are otherwise disposed of or consumed in testing, although several provide that the collaborator does not relinquish title when the part is disposed of in some manner other than delivery to the customer (R4, tabs 576-673).

4. *The Collaborators Share Program Expenses*

The collaborator's program share also determines the amount a collaborator is charged by Pratt for the program expenses (tr. 3/258 280-81). Collaborators on all three engine programs share actual expenses for [redacted] for engines and parts, even [redacted] (tr. 3/2811-82).

The PW2000 and PW4000 program collaborators share the costs of aircraft certification payments to airframe manufacturers in connection with obtaining FAA certification and, except for AMS which pays a fixed percentage of its program, the costs of fleet introductory assistance (FIA) (which includes discounts, credits or concessions that engine manufacturers give their customers), refurbishment expenses for certification and lease pool engines, foreign sales representatives, and post-certification engineering and development costs requested by a customer or to improve the engine's reliability.

Additionally, the collaborators on the PW2000 program share expenses for warranty, guarantee and service policies,

production assembly and testing of engines and also share in Pratt's disproportionate expenses, The JT8D-200 engine program collaborators share responsibility for write-offs of customer accounts receivable. (R4, tabs 659-673; ex. A-7; tr. 3/283.85)

5. *Fixed Fee and Drag*

The first collaboration agreements with MTU and Fiat recognized that Pratt would incur disproportionate expenses because it was to be the program manager and the final assembler of the engine and it was agreed that Pratt would be reimbursed for these expenses (R4, tab 659 subtab 9C at 2-3; tr. 3/206-07). In April 1982, it was further agreed that Pratt should be reimbursed for its disproportionate expenses on the basis of a fixed-fee per equivalent engine delivery based upon Pratt's actual costs less a decrement of [redacted] (R4, tab 659 subtab 14; tr. 3/217-21). In a 1983 Amendment, before any parts had been delivered, the parties determined that, each year, Pratt would establish a fixed fee for the following calendar year based upon forecasted production and that a final settlement of amounts owed to Pratt would be negotiated on the basis of actual production (R4, tab 659 subtab 15C at 1).

For the [redacted] programs, Pratt negotiated withholding of fixed percentage rates from all revenues due a collaborator as an estimate of Pratt's disproportionate program expenses, including overhead for program management and administration, marketing and sales, product support, material handling, and other administrative functions. The percentage rate is called "Drag." [redacted] the [redacted] Drag rates include customer guarantees and warranty and service policies. (Ex. A-7; tr. 3/287-90)

Except for the [redacted] agreement which contains a [redacted] Drag rate, the Drag rates for the [redacted] programs range between [redacted] (ex. Ap5). The Drag rates for

the [redacted] program are higher, ranging from [redacted] because they include both Pratt's disproportionate program expenses and the collaborator's share of program expenses for FIA and FAA certification (exs. A-5, -7; tr. 3/291).

6. *The Collaborators Share Proam Revenues*

The MTU and Fiat agreement for the PW2000 engine program provided that:

> It is the intent of the parties that all revenue, as adjusted for deductions specified . . . will be shared amongst the parties in accordance with the program shares . . . .

(R4, tab 659 subtab 15C at ¶ 3.0) All of the other agreements provide that the sharing of gross revenues from the sale of engines and parts will be "in consideration of the parts manufactured" (R4, tabs 660-673). The gross revenue share is determined by a collaborator's program share. The agreed-upon program expenses and Drag are deducted from the gross revenue share and collaborators are paid net revenue shares. (R4, tabs 659-673)

[redacted] the collaboration agreements, except [redacted] provide that a collaborator is entitled to its share of the program revenue upon the sale of an engine or spare part without regard to whether the engine or spare sold actually included any part manufactured by the collaborator, even if the collaborator has failed to deliver its program share of parts for that period (R4, tabs 659-671, 673; tr. 3/232). A collaborator receives its revenue share only after Pratt has been paid. Thus, for example, a collaborator does not receive a revenue share if Pratt gives a part to a customer or writes-off a payment from its account's receivable (tr. 3/311-12).

Pratt and the individual collaborators determine their respective profits for each engine program by comparing their respective revenues to their own respective expenses (Siegel report at ¶ 24; tr. 6/48-49).

7. Other Terms and Conditions of the Collaboration Ageements

The collaboration agreements have an average term of [redacted] years, with some extending to almost [redacted] years (ex. A-5). While [redacted] of the agreements [redacted] if Pratt [redacted] none contain termination for convenience clauses or permit a refund of any portion of its program entry fee. Except [redacted], none of the agreements contain a changes clause; most of the agreements contain sole source provisions requiring Pratt to order all of its requirements for a particular part from a collaborator that manufactures that part, so long as the collaborator is able to deliver. All of the collaboration agreements require the parties to continue collaboration on the engine series and models, all give collaborators the right to audit Pratt's records and all provide that the collaborator retains title until Pratt delivers the engine or parts to the customer. None of the collaborators receive an equity or ownership interest in Pratt. Likewise, Pratt receives no equity or ownership interest in any of the collaborators. (R4, tabs 659-673)

Additionally [redacted] collaborators, except [redacted], are required to give Pratt a worldwide, royalty-free license in technology that the collaborator develops or uses in the course of performing its duties under the agreement (R4, tabs 659-669, 671-673). The [redacted] agreement provides [redacted] (R4, tab 670 subtab 5 at 17).

The Government has singled-out the following provision which is contained in all of the collaboration agreements, except the Volvo PW2000 and the MTU PW4000 agreements:

> It is understood that each party is an independent contractor and that all persons engaged in work under this Agreement who are supplied by any party are the supplying party's employees and will in no sense be employees of the other party. The parties agree that no

party will have the right to act as the agent or legal representative of the other, nor shall this Agreement establish or be deemed to constitute any partnership between the parties hereto.

(R4, tab 659 subtab 13 at 13, 660-669, 671, 672)

The comparable provision in the Volvo PW2000 agreement, dated 16 June 1989, provides:

2.1 The relationship between [Pratt] and Volvo is that of independent contractors and not that of principal and agent, partners, or joint venturers. Neither party shall represent itself as agent, partner, or joint venturer of the other or do any act or thing which might result in other persons believing that it has authority to contract or in any other way to enter into commitments on behalf of or in the name of the other. All persons engaged in work under this Agreement who are supplied by any party are the supplying party's employees and will in no sense be employees of the other party.

(R4, tab 670 subtab 5)

The comparable provision in the MTU PW4000 agreement, dated 31 July 1997 (after the period at issue in these appeals), provides:-

16.6 *Capacity of the Parties*

It is understood that each Party is an independent contractor and that all persons engaged in work under this Agreement who are supplied by any Party are the supplying Party's employees and will in no sense be employees of the other Party. The Parties agree that no Party will have the right to act as the agent or legal representative partner or joint venturer of the other Party under this Agreement, nor shall this Agreement establish or be deemed to constitute any partnership between the Parties or any other business entity.

(R4, tab 673 at 34)

According to the credible testimony of Mr. Stole, who negotiated the collaboration agreements, the parties were identified as independent contractors because Pratt did not want employees of the collaborators to be considered employees or agents of Pratt (tr. 4/6-7,15-20).

B. *Administration of the Collaboration Agreements*

The collaboration agreements are administered by the Partner Program Office at Pratt (tr. 3/316-17). Pratt distributes the net program revenue shares to its collaborators on a monthly basis (tr. 4/54).

The collaboration agreements variously compute "net revenue share" as the amount of gross revenue share remaining after deducting Drag and other identified program expenses (ex. A-7; tr. 4/53-54). Because program expenses can exceed revenues in the first few years of a program, there have been occasions on which Pratt did not distribute any net revenue to a collaborator (ex. A-17; tr. 3/285-86, 4/68-69).

Pratt considers revenue share payments to be consideration for all of the collaborator's obligations, including the manufacture of parts, the payment of the entry fee and expenses, the use of Pratt's data and technology, and the sharing of liabilities and risks (tr. 4/25-30). They are not considered to be a payment for parts (tr. 4/52-53).

IV. *Pratt's Accounting Practices*

During the time period relevant to these appeals, Pratt has been divided into four organizational units: MD; Commercial Products Division (CPD); Government Products Division (GPD); and Group (ex. A-18). MD performs all manufacturing operations relating to commercial and military jet engines and spares. CPD designs, develops and sells military jet engines and spares manufactured by MD to the commercial marketplace. GPD designs, develops and sells jet

engines and spares manufactured by MD to the U.S. Government. Group performs various home office management, administrative and personnel functions that support the three divisions. (Tr. 4/74-75)

Because Pratt is a division of UTC, its financial position and operations are not reported separately, but rather are included in UTC's consolidated financial statements (Siegel report at ¶ 46, tab I). It is undisputed that none of Pratt's three divisions includes a cost or value for collaboration parts in its cost allocation bases and that none accounts for parts provided by collaborators or the collaborators' share of revenues as assets of Pratt on the balance sheet (tr. 9/113). It is also undisputed that Pratt and its collaborators never established separate accounting entities to record the revenues and expenses of the collaboration efforts.

A. *MD's Accounting Practices*

Material overhead costs (MOH) incurred by MD are allocated over a direct material cost base comprised of the cost of raw materials and parts purchased from subcontractors. No cost or value of collaboration parts is included in the direct material cost base. (Tr. 4/76) when a collaboration part is received by Pratt, MD does not recognize a liability to the collaborator and does not recognize any asset value for the part in Pratt's inventory (tr. 4/78). Instead, Pratt debits an account called "inventory—consigned" by one penny (the standard assigned cost of a collaboration part) and credits a "contra inventory—consigned" account by one penny (ex. A-8; tr. 4/79-81). No charge is made to work-in-process when collaboration material is moved into production because no cost or value for it has been recorded in Pratt's inventory (ex. A-14; tr. 4/84-85).

Prior to 1996, when an engine (or spare part) was sold, Pratt recorded a debit to cost of sales and a credit to contra-receivable (ex. A-21; tr. 6/292-94). It now debits one penny to

"cost of sales" and credits one penny to "inventory - consigned" (ex. A-8; tr. 4/85-86). The result of both methods is the same: no cost for the collaboration part is included in the cost of the engine or spare part.

MD's G&A expenses are allocated over a total cost input base comprised of all direct and indirect costs incurred by MD. Because no cost or value for collaboration material is included in the direct material cost base, there is no cost or value for collaboration included in MD's total cost input base (tr. 4/67).

B. *CPD's Accounting Practices*

CPD's G&A expenses are allocated over a total cost input base comprised of CPD expenses and the cost of engines and spare parts transferred to CPD from MD (tr. 4/76-77). Because MD's accounting system does not assign a value or cost for the collaboration parts, it does not transfer any costs for collaboration parts to CPD and CPD does not include any costs for collaboration parts in the total cost input base it uses to allocate G&A expenses (tr. 4/88).

C. *GPD's Accounting Practices*

GPD's over a total cost input base comprised of GPD expenses and the cost of engines and spare parts transferred from MD. As with CPD, the cost or value of collaboration parts is not included in total cost input base. (Tr. 1/69, 4/77)

D. *Group's Accounting Practice*

All IR&D expenses incurred by CPD and GPD are accumulated by Group. These IR&D expenses are then allocated back to CPD and GPD based upon each division's share of Group's total cost input base (tr. 1/69-70, 4/77-78). Group's total cost input base is comprised of the MD total cost input base and the total cost input bases at CPD and GPD, less the MD transfer costs to those divisions (tr. 7/183).

Thus, there is no cost for collaboration parts in the Group total cost input base (R4, tab 31).

E. *Accounting for Government Furnished Material (GFM)*

The parties agree that Pratt does not include GFM in its direct material cost base for allocating MOH and does not include GFM in its total cost input base for allocating G&A and IR&D.

F. *Accounting for Drag*

In 1991, Pratt concluded that its indirect cost pools should be credited for Drag withholdings from its gross revenue share payments to collaborators because all "parts consigned or purchased receive some level of support from various indirect [Pratt] functions" (R4, tab 32 at 3). It provided the Government with a cost impact analysis of retroactive Drag credits at a 23 July 1991 meeting (R4, tab 38). On 19 May 1992, and again on 23 December 1992, Pratt advised the Government that it had revised its accounting to credit the pools with Drag reimbursements retroactively to 1986 (R4, tabs 8, 19). Recognizing that the Government disagreed with its proposed method of crediting Drag, Pratt nonetheless provided a refund of $13,932,000 reflecting the impact to fixed price military contracts of Drag credits to its overhead pools with its 23 December 1992 letter (R4, tabs 7, 8,18).

Thereafter, Pratt began accounting for the Drag (and fixed fee) percentages it had negotiated with the collaborators with a debit to the "contra receivable" account and a credit to the "Material Overhead/G&A/Cost of Sales" indirect expense pools in order to remove overhead expenses incurred by Pratt associated with the collaboration material. (R4, tabs 8, 32; ex. A-19; tr. 4/38-39, 89-92)

G. *Accounting for Revenue Share*

When an engine or spare part is sold, Pratt treats only its own program share of the revenue as an asset (tr. 9/111-13). Mr. Donald Nichols, Pratt's Director of Government Contracts Accounting and Pricing, provided the following explanation of how Pratt accounts for revenue receipt and distribution. If CPD sells an engine or spare part for $100 to a customer from a program in which a collaborator has a 10% share, CPD debits "accounts receivable" and credits "sales" for the full amount of the sale ($100). To record the collaborator's gross program revenue share, it then debits "sales collaborator share of revenue" and credits "contra receivable" ($10 in the example). To record the collaborator's share of Drag expenses, Pratt debits "contra receivable" and credits "material overhead /G&A/ cost of sales" ($1 in the example). To account for revenue distribution, Pratt debits "cash" and credits "accounts receivable" to record the receipt of the full amount of the sale ($100). It then debits "contra receivable" ($9 in the example) and credits "cash" ($9 in the example). (Ex. A-19; tr. 4/91-94)

Beginning with the quarter ended 30 June 1996, the "classification of collaborators' program share of revenue [was changed] from cost of sales to a reduction of sales . . . thus providing consistency with the financial statement presentation of the other financial aspects of the collaboration arrangements." In advising the UTC controller that the "reclassification" represents . . . the adoption of a preferable alternative classification," the outside accountants, Price waterhouse, advised that "[i]t should be understood that the preferability of one acceptable classification of collaborators' program share of revenue over another has not been addressed in any authoritative literature." (R4, tab 415) Because the change impacted the reported revenue growth trend for the Pratt segment of UTC, it was necessary for UTC

to disclose this change on its financial statements (tr. 9/126-29).

The 1996 annual report for UTC thus contained the following note regarding the reclassification:

> In 1996, the Corporation changed its classification of sales associated with Pratt & Whitney's strategic alliances and related collaborative arrangements on its engine programs. Collaboration participants' share of revenue, previously included in cost of sales, has been reclassified as a reduction of sales in the Consolidated Statement of Operations for the year ended December 31, 1996. This reclassifcation was made to more clearly present Pratt & Whitney's production costs and operating activities. This reclassifcation did not affect net income or assets . . . .

(Keevan report, tab 21 at 32)

V. *Pratt's Subcontracts*

Pratt also purchases parts from subcontractors. Typically, Pratt issues a short-term purchase order which identifies the part, a fixed quantity, and a unit price with delivery and billing requirements, subject to specified terms and conditions. The purchase order subcontracts include changes and termination for convenience clauses. Pratt takes title to the parts upon delivery. (R4, tabs 674, 679 through 695; tr. 3/297-316) Occasionally, the parts are purchased under long-term agreements (LTAs), which may run as long as five years and are executed on a standard form (P&W F-7737) (R4, tab 358, 377; tr. 4/13). Unlike Pratt's standard subcontract, the LTAs may include sole source provisions (tr. 4/13-14).

Pratt's subcontractors are paid upon delivery of the part(s) (tr. 3/311), and usually are reimbursed by Pratt for non-recurring costs (R4, tab 358; tr. 3/188). They do not share the risk that program revenues may not exceed program expenses (tr. 3/315) and do not have the right to audit Pratt's books and

records (tr. 3/298-99). They do not receive operations assistance and do not have the right of access to Pratt's design and engineering technology and other confidential information, such as marketing and sales plans and forecasts (tr. 3/192, 276, 313-14, 4/49-51).

VI. Pratt's Disclosure of its Accounting Practices to the Government

A. *Pratt's CAS 418 and New Accounting System Disclosure Statements for MD*

Pratt submitted the first of many MD CAS 418 Disclosure Statements to the Government on 26 November 1980. The description of the "Standard Direct Production Material Input Cost Base" in Item 4.6.0(L) made no reference to collaborative materials. (R4, tab 600) In Audit Report No. 2640-1D441006, dated 29 December 1981, the DCAA concluded that, for, reasons not related to Item 4.6.0(L), implementation of this Disclosure Statement would not bring Pratt into compliance with CAS 418 (R4, tab 727). Because of "the complexity and quantity of required accounting changes," Pratt requested an extension of the 1 January 1982 CAS 418 implementation date (R4, tab 724). The administrative contracting officer (ACO), Mr. Edward M. Lawton, responded with a request for a revised Disclosure Statement (R4, tab 727). Pratt submitted the revised Disclosure Statement on 30 June 1982, but Mr. Lawton rejected it and issued an Initial Finding of CAS Noncompliance with CAS 418 on 12 November 1982 to which he attached a 5 November 1982 update of the DCAA audit report (R4, tabs 602, 731; tr. 4/144-45).

Pratt then requested, and the ACO authorized, an extension to a "target date" of 30 March 1983, for Pratt to respond to the issues raised in the Initial Finding of CAS Noncompliance (R4, tabs 732, 734, 736, 737; tr. 4/146-47). When the parties met on 30 March 1983, it was agreed that Pratt should have a

significant amount of additional time within which to comply with CAS 418 because it was developing a New Accounting System (NAS) (R4, tab 740; tr. 4/148-49).

Nevertheless, on 7 April 1983, the ACO issued a Final Determination of Noncompliance with CAS 418 based upon the audit reports and the noncompliances detailed in his letter relating to MD's initial 26 November 1980 Disclosure Statement (R4, tab 132). Before issuing the Final Determination, however, he explained to Pratt that the final determination was "to protect the Government's interest" and that "no financial actions would be taken," so long as Pratt made progress in submitting a plan that would result in a Revised Disclosure Statement (R4, tab 740 at 5882-84).

During the time period 1983 through 1987, Pratt submitted proposals and priced its Government contracts pursuant to a 3 March 1982 official Disclosure Statement which represented the baseline for its pre-CAS 418 and Pre-NAS accounting practices. At the time, Pratt was not receiving collaboration parts. Item 2.2.2(A) of the Disclosure Statement refers to charges for standard material costs for company-owned inventory established by Pratt pursuant to Procedures for the Development of Standard Costs. (R4, tab 601; tr. 4/161-64, 5/22-24)

The first references to collaboration material contained in Pratt's Procedures for the Development of Standard Costs appear in revisions found in section II. D.3.j., entitled "Foreign Collaboration Agreement Parts," which were effective 1 January 1984. The revisions provided that where only foreign sources were available, parts were to be valued with data furnished by cost estimators from the manufacturing engineering division. (R4, tab 101; tr. 5125) Further changes to the procedures, effective 1 January 1987, are found in section II. F.5.j., entitled "Consigned Inventory Parts." The revisions provided that where only a "consigned" source was available, parts were to be valued utilizing data

furnished by the manufacturing division cost estimating section. (R4, tab 78; tr. 5/26-27)

During 1983, Pratt considered a variety of alternative methods for valuing and accounting for consigned/collaboration material and the subject was discussed in meetings and correspondence with Government contracting and accounting personnel during 1983 (R4, tabs 90, 740, 742, 746; tr. 4/165-71). The first CAS 418 Disclosure Statement to make any reference to collaboration agreements is dated 30 September 1983. In paragraph (i), "Other Transaction Costs," of Item 4.7.0, "Application of Overhead and G&A Rates to Specific Transaction or Costs," it specifically discussed "Collaboration Agreements" and in Item 4.6.0(C) it proposed that collaboration material be burdened with an abated MOH rate for allocation of G&A in order to satisfy the causal/beneficial relationship requirements of CAS 418. (R4, tab 603; exs. A-1,-4; tr. 4/171-76)

Thereafter, in a 24 February 1984 CAS 418 Disclosure Statement, Pratt replaced the single MOH pool and established three new pools (purchasing, material handling and vendor quality assurance) which corresponded to the three MOH services provided for collaboration material described in Item 4.7.0(i) of the 30 September 1983 Disclosure Statement. Item 2.1.0, "Description of Principal Direct Materials," specifically refers back to the 4.7.0(i) description. (R4, tabs 603, 604; ex. A-4; tr. 4/178.83)

Following discussions with the Government, Pratt revised the 24 February 1984 Disclosure Statement on 22 August 1984, removed the reference to and the description of collaboration material from Items 2.1.0 and 4.7.0(i) and included the three new overhead pools in Item 4.1.0(n), "other [Overhead] Pools." Additionally, Item 4.6.0(L) provided that an estimated value for "Consigned Material" be included in the direct material cost input base and defined consigned material as including parts produced under

"specific collaboration agreements and/or Joint ventures," as well as GFM, such as fuel and components, and other materials, and other materials provided by the GPD. Item 4.6.0(L) further proposed that the new purchasing and material handling MOH pools would be allocated to consigned materials. (R4, tabs 605; exs. A-1, -3; tr. 4/190-99, 6/172-76)

Pratt's first NAS Disclosure Statement, dated 15 May 1985, and revised versions dated 21 June 1985 and 30 June 1986, included all of the CAS 418 changes proposed by the 22 August 1984 CAS 418 Disclosure Statement. Item 4.6.0(L) of these statements described the direct material cost base as including consigned material, which continued to be defined as including materials produced in accordance with collaboration agreements, GFM and GPD. (R4, tabs 606, 607, 608; ex. A-1)

DCAA evaluated the impact of the mandatory accounting changes resulting from CAS 418 to determine whether Pratt was entitled to an equitable adjustment during an audit of Pratt's 22 August 1984 Disclosure Statement and informally advised Pratt that the fragmentation of the MOH pool and the inclusion of consigned material in the direct material cost base were voluntary, and not mandatory, changes (R4, tabs 84, 641 at 6439a, 6442a; tr. 4/211-21, 6/158, 179-92). The final DCAA audit report (No. 2640-6D442002), issued on 4 December 1986, recognized that the allocation base for MOH had been expanded to include consigned material, GFM and GPD. It found an inadequacy, noting that the revised disclosure statement:

> does not adequately describe how quantities of consigned material and GFM on hand from 1 January 1982 forward will be determined . . . [and that] because the contractor's accounting system does not maintain inventory cost accounts for consigned material or GFM, the revision does not adequatley [sic] describe the

methods to be used to determine the amounts for this material.

(R4, tab 825 at 3)

In a letter to DCAA dated 29 January 1987, the ACO advised that the 4 December 1986 audit report superseded Audit Report No. 2640-1D441006 dated 29 December 1981 and made it obsolete (R4, tab 833).

In an Advance Agreement relating to "Implementation in CY1987 of Accounting Changes" dated 23 December 1986, Pratt and the Government agreed upon the mandated and voluntary accounting changes that would be implemented in calendar year 1987 and that the remainder of the mandatory changes would be implemented by 1 January 1988. The agreement deferred the calculation of the cost impact of the mandatory CAS 418 changes. (Tr. 4/156-59) The mandatory change did not involve collaboration materials. (R4, tab 216)

On 30 June 1987, Pratt submitted its final CAS 418 Disclosure Statement which it asserted superseded all previous CAS 418 Disclosure Statements and gave consideration to the recommendations contained in the 4 December 1986 audit report. This Disclosure Statement contained four changed accounting practices mandated by CAS 418 which created four new MD overhead pools: (1) assembly and test, (2) machining, (3) automated casting facility, and (4) Georgia blades and disks. (R4, tab 611)

The 30 June 1987 Disclosure Statement eliminated the description of the three new fragmented MOH pools (purchasing, material handling and vendor quality assurance) from Item 4.1.0(n), and instead returned to the single MOH pool, the description of which was similar to that contained in the first CAS 418 Disclosure Statement submitted on 26 November 1980 (R4, tabs 600, 611). Additionally, the 30 June 1987 Disclosure Statement removed all references to consigned material, GFM and GPD and the matrix which

depicted the ways in which the three MOH pools would have been allocated to the various classes of material was removed from Item 4.6.0(L). (R4, tab 611; exs. A-1, -3, -4) From Pratt's perspective, the Disclosure Statement reflected its conclusion that "no cost accounting changes were required to accommodate the collaboration activity" (tr. 4/234-36).

Item 4.6.0(L) stated: "The direct material cost base is comprised of standard production direct material, substitution, spoiled work, defective material, price and vendor tooling" (R4, tab 611 at 29). Although Item 2.2.2(A) continued to contain the reference to the Procedures for the Development of Standard Costs, it was not meant to include consigned inventory *(id.* at 4; tr. 5/29, 68-69).

Following review by DCAA, the divisional administrative contracting officer (DACO), on 17 September 1987, notified Pratt that the 30 June 1987 CAS 418 Disclosure Statement was adequate for the purpose of computing the cost impact of mandatory changes resulting from the implementation of CAS 418 and directed Pratt to submit an impact proposal with an "impact period" of 1 January 1982 through 31 December 1987 (R4, tabs 62, 63; tr. 4/238). By a letter dated 5 October 1987, the ACO advised Pratt that the 30 June 1987 Disclosure Statement was "adequate and in compliance" with CAS 418 (R4, tab 61).

On 30 September 1987, Pratt officially submitted a NAS Disclosure Statement based upon the 30 June 1987 418 CAS Disclosure Statement. It listed a single MOH pool in Item 4.1.0(n) with reference to the direct material cost base described in Item 4.6.0(L). Collaboration material, GFM and GFD were not included in the direct material cost base (R4, tabs 611, 612; ex. A-1; tr. 4/239-41). It also contained a reference to the "Procedure for the Development of Standard Cost" in § 2.2.2(A) that was identical to that contained in the 30 June 1987 CAS 418 Disclosure Statement (R4, tabs 611, 612; tr. 5/29). On 18 December 1987, Pratt submitted minor

revisions to the 30 September 1987 NAS Disclosure Statement (R4, tab 613), which the Government determined were adequate and compliant with CAS 418 (R4, tabs 57, 240).

B. *CPD's Overhead Rate Proposals*

CPD submits overhead/G&A/IR&D/B&P forward pricing rate proposals to its local Air Force Plant Representative Office (AFPRO) (tr. 7/172-73). CPD's Forward Pricing Rate Proposals for 1986 and 1987, dated 31 January 1986, included an entry for MD transfer costs (i.e., all the costs of manufacturing an engine and spare parts are transferred to CPD) (tr. 7/177), and a separate entry for "MTU/FIAT COST OF PARTS" (R4, tabs 795 at 19855). During an exit conference on 23 April 1986, DCAA expressed the view that the MTU/Fiat costs should be included in CPD's portion of Group's input base used to allocate IR&D/B&P and Pratt explained IR&D was not attributable to the parts because they were manufactured by MW and Fiat. Pratt further explained that revenue share was included in the CPD base to allocate G&A, but not as part of the Group base to allocate IR&D/B&P (R4, tab 805; tr. 7/197-03, 8/35-39). A revised Forward Pricing Rate Proposal for 1986 and 1987, dated 17 October 1986, did not include MTU/Fiat costs for parts or revenue share in the Group IR&D/B&P total cost input base (R4, tab 822 at 19893; tr. 8/40-43).

In July 1987, DCAA conducted an audit of CPD's final incurred cost overhead rate proposal for 1984, dated 21 July 1986, which reflected that the MTU/Fiat revenue share payments were included in CPR's total cost input base to allocate G&A and IR&D/B&P, but not in the Group IR&D/B&P base (R4, tab 811, 841; tr. 8/53-54). In response to DCAA inquiries, Pratt explained the revenue share cost was "the partner's share of the gross revenue from the sale" of engines and parts (tr. 8/55), and further that the MTU/Fiat costs were calculated by multiplying the total sale value of

the engine by 15.2%, the percentage agreed upon for MTU/Fiat collaboration (R4, tabs 841, 844 at 27475-76; tr. 8/55-62, 65).

Additional documentation which summarizes incurred IR&D/B&P, dated 6 May 1986, that Pratt provided to Mr. James F. Swift, the DACO, shows that no amounts were included for MTU/Fiat collaboration materials in the Group IR&D/B&P allocation base in 1983 because there was no activity, but that an amount was included in 1984, and that no amounts were included in 1985, 1986 and 1987 (R4, tab 809 at 26967-68; tr. 7/204-08).

On 1 February 1988, CPD submitted a billing rate proposal for 1988 (R4, tab 651 at 2732). DCAA audited the proposal and again questioned Pratt's practice of excluding the cost of MTU and Fiat collaboration parts from the Group allocation base (*id.* at 2679).

C. *GPD Agreements*

MD enters into agreements with the Government relating to the overhead rates used by GPD when negotiating engine sales to the Government (tr. 8/136-138). There was credible evidence that, during the course of negotiating the new Forward Pricing Rate Agreements for 1986 through 1988, the AFPRC was advised that the direct material cost base used to develop overhead rates did not include a cost for consigned parts and partners (R4, tab 807 at 2986; ex. A-26; tr. 8/138-39, 148, 153-54).

Forward pricing rate agreements were reached on 14 March 1986 and 7 August 1987 (R4, tabs 801, 846). After implementing its new NAS, Pratt submitted a proposal to convert the 7 August 1987 agreement to its new system. Although it found Pratt in noncompliance with CAS 406, "COST ACCOUNTING PERIOD," and CAS 418 for failure to maintain homogeneous indirect cost pools, the report makes

no mention of any noncompliance relating to collaboration material. (R4, tab 656 at 5469-72)

Pratt also submitted proposals for Forward Pricing Rate Agreements for 1989 through 1993 (R4, tabs 892, 893). The work papers from the DCAA auditor of these proposals show that Pratt did not include any cost for either the "standard material consigned" or "overhead material consigned" items, both of which were listed as cost elements for MD's material base. The auditor concluded that the "allocation bases are in compliance with disclosed practices." (R4, tab 653; tr. 8/176-79)

VII. The Government's Views of Pratt's Collaboration Agreements

A. The Government's Findings of Noncompliance

On 29 January 1991, DCAA issued an audit report (No. 2641-91L44200001) which found that CPD's annual incurred cost submission for calendar year 1984 was noncompliant with CAS 410 and 420 because it excluded Mill and Fiat collaboration parts from its total cost input allocation bases for G&A and IR&D. The report concluded that Pratt had not complied with CAS 410.40(b)(1) and CAS 420.50(f)(2) and was supplemented on 28 February 1991. (R.4, tabs 43, 47) The audit findings led the DACO to issue an Initial Finding of Noncompliance with CAS 410 and 420 on 12 February 1991 (R4, tab 46; tr. 7/98).

Pratt responded on 28 March 1991 explaining in detail why the "transactions recorded in cost of sales [were] not a cost [of the parts] but rather a sharing or distribution of revenue applicable to a given engine program." It went on to assert that there was "no prime and subcontractor relationship with [its] partners [and that a]ll partners share the risks and revenue on a given commercial engine program which include such areas as the design, development, manufacture, marketing, sale and support of the given engine program."

Finally, Pratt explained that the "partners' parts are *not sold* to [Pratt] but rather *consigned* for the assembly and testing of a given engine." (R4, tab 42 (emphasis in original))

On 31 July 1991, DCAA issued an audit report which concluded that MD's annual incurred cost submission did not comply with CAS 410 and 418 for calendar years 1984 through 1986 because collaboration material was excluded from its MOH and G&A allocation bases (R4, tab 37). As he had with the CPD audit report, the DACO, on 23 August 1991, issued an Initial Finding of Noncompliance with CAS 410 and 418 (R4, tab 36).

On 5 September 1991, the Navy Tri-Service Negotiating Office which negotiated IR&D/B&P advance agreements with Pratt, issued another Initial Finding of Noncompliance based upon the 29 January 1991 audit report (No. 2641-91L44200001). It found that the exclusion, of collaboration material from the CPD component of the Group allocation base used for allocating IR&D to the product divisions did not comply with CAS 420 and had resulted in an "inequitable distribution of IR&D/B&P costs to" Government contracts (R4, tab 35). The Navy Tri-Service Negotiating Office and the DACO agreed that that the DACO would combine disposition of the CAS 410/418 and the CAS 420 noncompliance findings (*id.*).

Pratt responded to the 23 August and 5 September 1991 Initial Findings of Noncompliance in letters dated 23 September and 3 October 1991(R4, tabs 31, 32). In both letters, Pratt advised the Government that, following a review of it collaboration agreements, it had concluded that it was in full compliance with all CAS and FAR requirements. It explained that, "in accordance with [its] collaboration agreements, Pratt . . . received] on a consigned basis Partners' Furnished Parts which are incorporated in the engine assembly by [Pratt]." It contended that its "Collaboration Partner parts" should be treated like GFM because the

material was not purchased and title did not pass. (R4, tab 32) It further contended that "the sharing of revenue should be excluded from the [cost input] base to ensure a proper distribution of G&A and IR&D expenses to final cost objectives" (R4, tab 31). It acknowledged "all parts consigned (both government and partner) or purchased receive some degree of support from the material overhead and G&A functions" and proposed that the drag and/or fixed fee it had negotiated with its partners was an appropriate adjustment to the indirect cost pools (*Id.*).

DCAA's response to Pratt's contention regarding GFM was as follows:

> . . . Our limited analyses of available cost data indicate that the inclusion of [the GFM nozzles and jet "A" fuel] in both the material and G&A allocation bases, unlike the impact of including commercial collaboration parts, would not significantly impact the bases or the indirect expenses allocated to Government contracts. However, in the interest of achieving a fair and equitable resolution of the issues, we recommend that GFM be included in these allocation bases.

(R4, tab 29 at 16)

On 24 January 1992, Mr. Swift, the DACO, issued a Final Finding of Noncompliance with CAS 410, 418 and 420. He found that the "actual cost" of collaboration parts was not incurred by Pratt. However, he concluded that the collaboration material caused Pratt to incur overhead expenses, that the collaboration material benefited from indirect expense activity, and that Pratt "ha[d] not included an appropriate measure of the cost of parts consigned by collaborating partners in the expense allocation bases." His decision was based upon the "requirements of [CAS] and in particular the beneficial or causal relationship between the indirect expenses and the final cost objectives that include these consigned costs." He determined that the "'revenue

shares' of sales . . . would be the fairest measure" of the value of the "consigned parts." He further expressed the view that collaboration parts should be treated in "the same manner as all other parts" and that crediting the pools with Drag was inconsistent. He found the period of noncompliance was retroactive to 1 January 1984 (the approximate date upon which the collaborators began substantial production) and directed Pratt to revise its Disclosure Statements to bring it into CAS compliance. (R4, tab 25)

Prior to issuing the Final Finding of Noncompliance, Mr. Swift had questioned how to characterize the collaboration agreements during a Government meeting (R4, tab 928 at 1055). Additionally, notes that he wrote in conjunction with the preparation of the Final Finding of Noncompliance reflect his concern that use of revenue share to calculate an allocation of indirect costs to collaboration parts "would be unfair in that this figure would include in addition to the Fabrication Cost allowances for various Fees and 'Drag' and the partner's profit/loss" (R4, tab 696). His notes also reflect his thought that it would be "simpler . . . to assume that the 'Drag' represented true causal/beneficial relationships and use it to credit the overhead accounts" (*id.*). In April 1992, shortly after issuing the Final Finding of Noncompliance, Mr. Swift acknowledged that there was "not much guidance available" on how to account for collaboration parts in a briefing on government accounting issues relating to collaboration arrangements in general (R4, tab 931 at 1166).

Pratt disputed the Final Finding of Noncompliance in a letter dated 23 March 1992 and demanded that the contracting officer issue a final decision finding that its method of accounting for collaboration parts did not violate CAS (R4, tab 23). When the DACO did not issue a final decision, Pratt filed an appeal alleging a deemed denial of its claim under § 6(c)(5) of the Contract Disputes Act, 41 V.S.C. § 605(c)(5),

on 1 April 1994. The appeal was docketed as ASBCA No. 47416.

Consistent with the representations contained in its responses to the Initial Findings of Noncompliance, in December 1992, Pratt began crediting its MOH and G&A pools with the amount of the Drag percentage deducted from each collaborator's gross revenue share to cover the cost incurred to service and handle the collaboration parts (R4, tab 375).

Meanwhile, the DACO directed DCAA to provide an estimate of the cost impact in accordance' with his Final Finding of Noncompliance that included a value for all collaboration material and GFM in Pratt's allocation bases (R4, tab 20; tr. 7/130-31). On 28 September 1992, DCAA issued the requested report for the years 1984 through 1990, and on 22 December 1992, it revised the report to include 1984 through 1994, the latter of which concluded that "the exclusion of collaboration parts' cost and GFM from the allocation bases has resulted in increased costs to the government of $278.4 million . . . [including interest] charges on government's overpayment of overhead expenses . . . . " (R4, tabs 9, 15) In a memorandum dated 6 April 1993, the DACO formally advised DCAA that he was "in complete agreement" with DCAA's recommendations and cost impact findings which were based upon inclusion of both collaboration material and GFM in the allocation bases (R4, tab 2).

Following an investigation of Pratt's accounting practices, the new DACO, Mr. William Morrow, Jr., issued a final decision on 2 December 1996 finding that Pratt had improperly excluded collaboration material from its allocation bases. He concluded that the collaborators were "in essence subcontractors or vendors" to Pratt and that the net revenue share payment represented a cost to Pratt which should be in included in its allocation bases for the

calculation of its MOH, G&A and IR&D/B&P rates. He determined that Pratt's failure to do so did not comply with the "requirement for a causal or beneficial relationship between indirect expenses attributable to collaboration parts and the final cost objectives that include collaboration parts" and violated CAS 410, 418 and 420. He concluded that Pratt's failure to comply with CAS had resulted in a cost impact to Government contracts in the amount of $157,593,610, plus interest of $102,696,501, a total of $260,290,111, during the period 1984 through 1995, and demanded payment therefore. (R4, tab 375) A timely appeal from this decision was docketed as ASBCA No. 50453.

B. *The Government's Other Views of Collaboration Agreements*

The DACO's conclusion in the 2 December 1996 final decision that Pratt's collaborators were "in essence subcontractors or vendors" is different than other views held by the Government. For example, on 19 September 1977, Pratt proposed that its JT 10D engine development costs be included in its IR&D program in an attempt to recover some of these costs under the (then applicable) Defense Acquisition Regulation (DAR), section 15-205.35(a) of which defined a contractor's IR&D effort as that "technical effort not sponsored by, or required in the performance of, a contract . . . ." (R4; tab 109 at 8) In order to satisfy these requirements, Pratt characterized its collaboration agreement with MTU and Fiat as "no more than a contractor/subcontractor relationship" (R4, tab 108).

The Government rejected this characterization and concluded that the JT10D development effort was not IR&D within the meaning of DAR 15-205.35 in a lengthy legal Memorandum To File dated 4 April 1980 written by the Department of Navy's Deputy Assistant General Counsel (Acquisition). After analysis of the MTU and Fiat agreements, the memorandum concluded that the "structure is

more on the order of a joint teaming agreement, or as [Pratt] has aptly named it, a collaboration agreement" (R4, tab 109 at 13). Based upon this memorandum, the AFPRO, in a 6 November 1980 letter to DCAA, referred to Pratt's agreements with MTU and Fiat as "joint ventures" (R4, tab 730, attach. 1).

Also of relevance is a 1991 survey of 51 joint ventures and other special business units (SBUs) conducted by DCAA which concluded that there had been "inconsistent application and implementation of the CAS" (R4, tab 329 at 34045). In a memorandum for regional directors, DCAA provided a staff conference awareness training package designed to alert auditors to these business organizations and commented that there was "little FAR and CAS guidance on [the] formation and proper accounting" for these contracting arrangements (*id.* at 34040).

The DACO's conclusion is also different than the view held by DCAA with respect to another manufacturer of jet engines, General Electric Aircraft Engines (GEAE), which also entered into international collaboration agreements called Special Production Agreements (SPAS) during the 1970's and 1980's (R4, tab 816). The Government does not dispute that the SPAS share key similarities with Pratt's collaborations, both as to the structure of the agreements as well as to the accounting treatment of collaboration parts.

The GEAE collaborators provide consignment parts to GEAE and receive revenue share payments from GEAE sales (R4, tab 940). Under the GEAE arrangement, title passes from the partner to GEAE upon the sale of an engine and instantaneously passes from GEAE to the customer. GEAE does not record ownership of any pares and does not include them as inventory. The parts are excluded from the GEAE material overhead pools. (R4, tab 944 subtab 2)

On 4 May 1995, DCAA issued an audit report on GEAE's revenue share material accounting treatment (R4, tab 944 subtab 12). The report stated:

> . . . We have determined that SPA sourcing costs are excluded from the Sourcing pool and are charged to benefiting cost objectives. . . . We have determined that some SPA handling and transportation expense is included in the Receiving pool but the contractor informs us that these costs are insignificant and segregation would be impractical. . . . We found no basis to disagree with the contractor's assessment on the insignificance of SPA receiving costs. . . . We have concluded that exclusion of SPA material from the Sourcing and Receiving pools allocation bases is permissible since related SPA material overhead is substantially charged to benefiting cost objectives.

(*Id.* at 2)

Additionally, shortly after the Final Finding of Noncompliance was issued to Pratt, the DACO for the Hamilton Standard Division (Hamilton Standard) of UTC asked DCAA to undertake an audit of its collaboration agreements to determine the impact of excluding the "partner's costs of components" from its material and G&A cost allocation bases (R4, tab 929). DCAA responded with an audit of Hamilton Standard's 7 November 1990 collaboration agreement with a French company, Ratier Figeac, for a new composite bladed propeller system (R4, tab 936). The agreement contains many of the same type of basic terms and conditions as the Pratt collaboration agreements (R4, tabs 9 10,932). Hamilton Standard advised DCAA that it does not treat revenue share payments to Ratier Figeac as a payment for parts and would not include them in its allocation bases (R4, tab 935).

DCAA found that Ratier Figeac manufactured, assembled and delivered the composite blade to the customer and that, because Hamilton Standard did "not receive any hardware

from Ratier-Figeac," it did not add any 'value" to the parts for purposes of Government accounting (R4, tab 936 at 2). DCAA noted: "The inventory account recording Ratier's [revenue] share is transparent to [Hamilton Standard's monthly analysis of operations; therefore, the accounting transaction will be ignored for government accounting purposes" *(id.* at 3).

Additional Findings Relating to ASBCA No. 50888

On 23 June 1988, Pratt submitted a Request for Equitable Adjustment (REA) for the cost impact to MD resulting from its compliance with the CAS 418 mandatory accounting changes described in its 30 June 1987 CAS 418 Disclosure Statement. Pratt sought recovery of $49.9 million, (R4, tab 866) In accordance with the Advance Agreement relating to "Contract Pricing Proposals" dated 22 December 1987. Pratt also calculated the impact of its voluntary accounting changes. The Advance Agreement did not make any reference to collaboration materials. (R4, tab 239) The cost of the voluntary changes, $8.9 million, was used to offset the cost of the mandatory changes, resulting in a net impact claim of $41 million (R4, tab 866; tr. 744748).

DCAA was of the view that there was "a lack of adequate and auditable supporting documentation" for the REA (R4, tab 881 at 5936-37). Mr. Swift, then the DACO, took the position that any settlement of the REA should result "in a zero net impact for mandatory and voluntary changes" (R4, tab 655 at 63 15). On 18 October 1985, he canceled his request for an audit and advised DCAA that he was in "the process of requesting a new proposal" from Pratt *(id.* at 6261).

The parties met in May 1990 to discuss the CAS 418 impact claim (R4, tabs 900, 901). Negotiations continued and the DACO drafted two versions of a settlement agreement, both of which contained the statement that "[n]othing in this

agreement prejudices any other issues between the parties other than the specific cost impact" proposal dated 23 June 1988 (R4, tabs 912, 913). This language was deleted from the final agreement executed by the DACO and Mr. Nichols on 8 February 1991 (R4, tab 914; tr. 7/155-59). The final agreement provides in relevant part:

> 1. This document constitutes an agreement . . . pertaining solely to the mandatory and voluntary accounting changes, set forth in the Contractor's Disclosure Statements dated March 6, 1987 and December 18, 1987 and implemented by the Contractor on 1 January 1987 and 1 January 1988, and the cost impact of such changes on government contracts.
>
> 2. The parties recognize that the mandatory accounting changes identified above address and fully resolve the Cost Accounting Standard (CAS) 418 final finding of noncompliance issued by the Government in a letter dated 7 April 1983.
>
> 3. This agreement resolves all the requirements and obligations of the parties set forth in the [23 December 1986 and 22 December 1987 Advance Agreements], which are incorporated by reference.
>
> 4. . . . [T]he parties agree that the net cost impact of the mandatory and voluntary changes on the Contractor's government contracts is zero ($0.00). . . This agreement constitutes a full and complete settlement of the cost impact of the mandatory and voluntary accounting changes identified above for all government contracts.
>
> . . . .
>
> 6. In consideration of the settlement agreed to herein, the parties hereby release each other from any and all liability for the changes covered by this agreement, ...

(R4, tab 914)

The 6 March 1987 Disclosure Statement provided revisions to the 15 January 1987 Disclosure Statement and the 18 December 1987 Disclosure Statement provided minor revisions to the 30 September 1987 NAS Disclosure Statement. Apart from the disclosure statements themselves, the record contains virtually no evidence about the 6 March, 15 January and 18 December Disclosure Statements. (R4, tabs 609, 610, 612, 613) Other evidence, in particular the audit reports issued by DCAA on 28 and 29 January 1991, which concluded that CPD was in Noncompliance with CAS 410 and 420 due to its accounting treatment of collaboration materials, reflected the Government's general concerns at the time about Pratt's accounting for collaboration parts (R4, tabs 7, 8, 17, 19, 23, 25, 32, 33, 35, 42, 47, 48, 310, 313, 320, 322, 324, 326). The DACO nevertheless testified that he was "not aware of any issue with collaborations" when he signed the settlement agreement (tr. 7/163).

As we found, the DACO issued an Initial Finding of Noncompliance by MD with CAS 410 and 418 on 23 August 1991 and a Final Finding of Noncompliance with CAS 410, 418 and 420 at MD, CPD and Group on 24 January 1992 (R4, tabs 25, 36). In a final decision dated 2 December 1996, the Government demanded payment in the amount of $260,290,111 (R4, tab 938).

On 11 April 1997, Pratt submitted a new CAS 418 cost impact claim asserting that the Government's 24 January 1992 Final Finding of Noncompliance with CAS 418 and the DACO's 2 December 1996 final decision constituted a revocation and/or breach of the 8 February 1991 settlement agreement. The claim seeks $34,251,000 which is alleged to be the impact of the four CAS 418 mandatory accounting changes during the period 1982 through 1987. (R4, tab 378) It is the same claim (with revised dollar impact calculations) that was submitted on 23 June 1988 (R4, tab 866). Pratt asserted that the claim should be "alternatively and properly considered an offset/defense in ASBCA No. 50453 (and in

the related appeal, ASBCA No. 47416)" as well as an affirmative claim (R4, tab 378).

The claim was denied in a final decision issued by the DACO on 7 July 1997, who found that the settlement agreement pertained only to "the 'mandatory' and 'voluntary' accounting changes set forth in [Pratt's] Disclosure Statements of March 6 and December 18, 1987, as they were implemented on January 1, 1987 and January 1, 1988, respectively" and that, "[s]ince the allocation of indirect costs to collaboration material is not included among the identified 'mandatory' and 'voluntary' accounting changes, it is not covered by the 1991 Agreement" (R4, tab 379). In short, the DACO concluded that the settlement did not resolve all CAS 418 compliance' and cost impact issues, only those relating to the specific mandatory and voluntary changes referenced. A timely appeal was docketed as ASBCA No. 50888.

VIII. The Expert Witnesses

A. The Government's Experts

The Government called *two* expert witnesses: Thomas A. O'Donnell and Stanley Siegel.

1. *Thomas A. O'Donnell*

Mr. O'Donnell is the Chief, Technical Programs Division, DCAA, Mid-Atlantic Region, has extensive experience with CAS and has testified on one previous occasion as a CAS expert at the ASBCA. He was qualified as an expert on CAS and cost accounting for Government contract purposes in these appeals. (O'Donnell report at ¶¶ 1-2; tr. 1/157-5 8)

Mr. O'Donnell explained that he reads CAS 418.50(d)(2) and 418.50(d)(iv), CAS 410.30(a)(3) and 410.50(d), CAS 420.50(f)(2), and FAR 31.203(c) as requiring Pratt to include revenue share payments it makes to collaborators in its MOH, G&A and IR&D/B&P indirect expense allocation bases and that he believes the exclusion of these payments results in

CAS noncompliance and increased costs to the Government (O'Donnell report at ¶¶ 5,6, 19-23; tr. 1/159-61). He is of the view that the definition of a "cost" contained in footnote 19 of paragraph 26 in FASB Concepts Statement No. 6 is applicable (O'Donnell report at ¶¶ 7, 18, tab 4; tr. 1/162-63). The definition recognizes that cost is an economic sacrifice to obtain goods and services and was acknowledged by the court in *Riverside Research Institute v. United States,* 860 F.2d 420, 422 (Fed. Cir. 1988). (R4, tab 632 at 11 19)

It is Mr. O'Donnell's opinion that the revenue share payments constitute the cost of the collaboration parts and that Pratt's relationship with the collaborators is the same as with its "purchased part vendors, i.e., manufacturer and supplier or prime contractor and subcontractor" (O'Donnell report at ¶ 9). He is of the view that Pratt's payment, or its liability to make payment, to these suppliers is a cost that is incurred at the time of the sale *(id.* at ¶ 10). (Tr. 1/215-16, 2/10, 57, 11/61)

He acknowledged that he did not examine all of the terms of all of Pratt's collaboration agreements and did not examine any of Pratt's subcontracts (tr. 1/202-06). Rather, he relies upon a number of internal Pratt documents from the time period 1980 through 1989 which indicated to him that revenue share payments were considered by Pratt to be a cost subject to indirect expense allocations (O'Donnell report at *4* 16; tr. 1/170-74, 176-79). Several of these (and other) documents, however, also reflect Pratt's consideration of a number of different methods of accounting for revenue share payments that did not treat the payments as a cost (R4, tabs 7, 91, 111, 118, 138; tr. 1/217-22, 2/17-32).

Since he views revenue share payments as a cost to Pratt of its products, Mr. O'Donnell sees no analogy between collaboration material and GFM (O'Donnell report at 13; tr. 1/185-88).

Mr. O'Donnell is further of the opinion that, in order to comply with FAR 31.201-5, Pratt should include the collaborators' gross revenue shares in its allocation bases because the gross revenue share records the cost of the collaboration parts and Drag credits the relevant pool to recover indirect expenses (O'Donnell report at ¶¶ 25-28; tr. 1/183-84).

Finally, Mr. O'Donnell believes that Pratt was not required to make any mandatory accounting changes relating to collaboration parts in order to comply with CAS 418 because it had no accounting practices for collaboration material as of 1 January 1982 (O'Donnell report at ¶ 30). He concluded that, for purposes of an equitable adjustment under FAR 30.602 and 52.230-2(a)(2), Pratt could only include cost impacts resulting from its cost accounting changes for the periods of performance subsequent to the implementation of its changes on 1 January 1987 and 1 January 1988 (*id.* at ¶ 31; tr. 217 1-73).

2. *Stanley Siegel*

Professor Siegel teaches accounting, finance and business planning at New York University Law School, has extensive experience in both Government and private practice as a Certified Public Accountant (CPA) and lawyer, has served on various cost accounting committees, and regularly lectures and writes on accounting and other finance subjects. He has testified as an expert before a variety of fora, including the ASBCA. In these appeals he was qualified as an expert in GAAP, audit standards, accounting practice and theory, business organizations and finance. (Siegel report at ¶¶ 1-9; tr. 2/105-11)

In Professor Siegel's opinion, the collaboration agreements are typical of supply contracts for the purchase of materials with formula based pricing (Siegel report at ¶¶ 17, 52; tr. 2/117-18). He did not consider whether there were any

differences between Pratt's subcontracts and its collaboration agreements in reaching this opinion (tr. 2/208-09). He is also of the opinion that Pratt's payments to the collaborators should be treated as material costs. Along with other general GAAP principles, he, like Mr. O'Donnell, relies upon the FASB Statement of Financial Accounting Concepts No. 6 definition of the concept of cost. (Siegel report at ¶¶ 16, 39, 40, 52; tr. 2/114-15, 125-28)

Professor Siegel also relies upon the GAAP concepts of "revenue" and "earnings," "profit" or "net income" defined by FASB Statement of Financial Accounting Concepts Nos. 5 and 6 in concluding that the collaborators simply receive a percentage of gross sales, i.e. revenues, and "do not share earnings, profits or net income from the jet engine program" with Pratt (Siegel report ¶¶ 22, 28-30; tr. 2/131-32).

He considers Pratt's consignment argument to be a "diversion" because he believes the collaboration parts are "in effect purchased by Pratt" (Siegel report at ¶ 43, 52; tr. 2/168-69), and Pratt's contention that collaboration parts are analogous to GFM to be "similarly fallacious" (Siegel report at ¶ 44; tr. 2/163-67).

Professor Siegel also discussed the change in Pratt's accounting in 1996, pursuant to which a collaborator's share of revenue was reclassified from a cost of sales to a reduction in sales in UTC's consolidated financial statements (Siegel report at ¶ 46; 2/141-43). We find the conclusions he has drawn from this reclassification regarding the purposes of the reclassification to be based upon unsupported speculation (*id.* at ¶¶ 47-51).

Professor Siegel found no authoritative accounting guidance for Pratt's treatment of revenue share payments and concluded that GAAP requires that the amounts paid for collaboration parts be accounted for as cost of materials and included in the material cost base used for the allocation of MOH (Siegel report at ¶ 52; tr. 2/145-46).

B. *Pratt's Experts*

Pratt called four expert witnesses to address ifs accounting treatment of collaboration parts: David J. Teece, Nelson H. Shapiro, Charles T. Horngren and William T. Keevan. It also called Margaret M. Worthington as an expert to address whether AFPRO and DCAA personnel knew or should have known that no values for collaboration materials were included in Pratt's allocation bases (Worthington report at ¶ 15).

1. *David J. Teece*

Dr. Teece holds a Ph.D. in economics, teaches at the University of California, Berkeley, and is a principal and the chairman of the Law and Economics Consulting Group, Inc. He has written extensively on the law and economics of contractual relations, including strategic alliances and subcontracting, and was qualified to testify as an expert in organizational economics and industrial organizations. (Teece report at 1; tr. 6/14-15)

Dr. Teece examined Pratt's collaboration agreements and concluded that the agreements are not standard subcontracts, but rather fit into a broader class of strategic alliances that, from an economic point of view, are significantly different from typical subcontractor relationships (Teece report at 38; tr. 6/16).

He used the following four umbrella "dimensions of inter-firm relationship" which he had "distilled" from the literature in his analysis of the collaboration agreements: (1) the contractual and administrative structure of the arrangement; (2) the exchange of information, resources and capabilities that result in learning; (3) the distribution of risk; and (4) the willingness to accommodate change, avoid and resolve disputes (Teece report at 6, 8-14; tr. 6/18-19, 24-35, 79-80). His evaluation involved a continuum or transaction spectrum in which transactions at one end take place within a vertically

integrated or multi-divisional firm and at the other end are purely arm's length between two firms in a market (tr. 6/21). In Dr. Teece's view, strategic alliances and subcontracts are mutually exclusive for a given set of transactions (tr. 6/73).

The Government contested the relevance and validity of Dr. Teece's report and testimony, primarily on grounds his views amount to no more than a comparison of simple subcontracts to more complex ones (Gov't br. at 75; tr. 6/12-14). We have some reservations about the general applicability and reliability of the four dimensions selected by Professor Teece to test and analyze the collaboration agreements. *See Libas, Ltd. v. United States,* 193 F.3d 1361 (Fed. Cir. 1999). Nevertheless, the evidence fully supports his observations that, from an economic point of view, the collaboration agreements are substantially different than standard subcontracts, in particular with respect to the distribution of risk which results from the lack of specified prices, the linkage of revenue to the commercial success of the engine, the requirement of up-front payments and the timing of the revenue share distribution (Teece report at 31-34).

2. *Charles T. Horngren*

Professor Horngren holds an MBA in general management and a Ph.D. in accounting, is a CPA, teaches accounting at Stanford University, was elected to the Accounting Hall of Fame in 1990, has received a number of prestigious accounting and teaching awards, has written and co-authored a number of accounting books, and has served on the boards and councils of the major accounting standards organizations, including the FASB Advisory Council. Much of his work has involved the analysis of business organizations in order to determine proper accounting (tr. 7/12-14). He testified as an expert on GAAP, cost accounting and management accounting. (Horngren report at ¶ 4-13; tr. 7/15)

Based upon his management and cost accounting expertise and using a GAO Report (No. GAO/NSIAD-94-173) which studied cooperative, private sector business relationships "as a starter," Professor Horngren studied 17 characteristics of the Pratt collaboration agreements and concluded that the relationship between Pratt and its collaborators was not that of a prime contractor-subcontractor, but was more partnership oriented (Horngren report at ¶¶ 19-23,34, ex. 1; 7/6-18, 22-24). He explained that strategic alliances were not confined to economic literature and thought that the following statement in the GAO Report regarding the continuum of business relationships was significant: "The transition from transactional, adversarial business relationships to partnership-oriented, cooperative, longer term relationships is one strategy companies are pursuing to remain competitive . . ." (Horngren report at ¶ 15, ex. 1; tr. 7/19-20; 53-54).

He examined the economic substance of the collaborations first because economics is the root discipline of accounting, particularly when it is affected by the sharing of risks and rewards (tr. 7/22-25). He believes that: "Correct accounting theory and practice is that accounting should report on the financial impact of relationships and transactions. To capture the economic substance is paramount. Legal forms are secondary considerations." (Horngren report at ¶ 20) His view is shared by Professor Siegel, so long as the accounting is in accordance with GAAP (tr. 2/222). Professor Siegel also acknowledged that the substance over form concept suggested in AICPA SAS No. 69 was generally applicable under GAAP and was "a good proposition" (tr. 2/225-28).

Professor Horngren concluded that the sharing of economic risk and rewards between Pratt and its collaborators which determined their respective profit and loss was "the driving force underlying the relationship[s]" (Horngren report at ¶¶ 24,30, ex. 1; tr. 7/22, 24-25). He observed that the "Pratt collaborators have a common focus, the ultimate customer"

(tr. 7/30). In his view, when a subcontractor delivers a part to Pratt, it transfers the risk and is entitled to payment. In contrast, when a collaborator delivers a part, it continues to bear its costs and its risk until the engine is delivered to the customer, at which time it receives its reward. (Horngren report at ¶¶ 26-29, 32; tr. 7/26-27) Professor Horngren saw further differences in the various investments borne by the collaborators (*e.g.*, the entry fees and various expenses), the lack of stated prices, exclusive supplier rights, the long term nature of the arrangements, and the assumption of general liabilities (Horngren report at ¶¶31, 33).

Professor Horngren also evaluated the interrelationships between the various components or functions in the "value chain," which is defined in accounting literature as "the sequence of business functions in which utility is added to the products or services of an organization" and begins with research and development and ends with customer support or warranty (Horngren report at ¶ 28). He found that, unlike prime-subcontractor transactions, the Pratt collaboration relationships spanned almost all of the chain (Horngren report at ¶¶ 28,29; tr. 7/27-29).

In the absence of any specific accounting pronouncements applicable to the collaboration agreements, Professor Horngren determined that the closest analogous pronouncements were those applicable to joint ventures (tr. 7/30, 59-60, 75). Although he disagreed with use of analogous accounting in this case, Professor Siegel conceded that its use was appropriate where there are new types of business transactions (tr. 2/23 8-40).

In concluding that the use of analogous joint venture accounting was appropriate, Professor Horngren relied upon APB Statement No. 4 which advises that accounting should reflect the economic substance of events in a consistent way (R4, tab 623 at ¶¶ 6, 12; tr. 7/31-34, 79-80). He also relied upon top level GAAP, FASB Statement No. 48, which

establishes six criteria that must be met for a sale to be recognized, all of which are based upon the economic substance of the transaction (R4, tabs 629 at ¶ 6; tr. 7/35-37). Finally, he considered AICPA SAS No. 69 because auditors are alert to the economic substance concept and International Accounting Standard No. 31 because it was the most descriptive of the collaboration arrangements of anything he found (R4, tabs 634, 635; tr. 7/37-42, 86-87).

Professor Horngren determined that Pratt should be regarded as a "collector of total revenues" which are passed along to the respective collaborators (Horngren report at ¶ 34; tr. 7/50-51). He concluded that:

> . . . Pratt's practice of not treating revenue share distributions as a cost is in accordance with widely accepted cost accounting concepts and practices and it also abides by generally accepted accounting principles. It best portrays the economic substance of the existing relationships among entities, their transactions, and their bearing of economic risks and rewards.

(Horngren report at ¶ 35) In reaching this conclusion, he was aware that Pratt had accounted for revenue share payments to the collaborators as a cost of sales in its annual reports through 1995, at which time the auditors determined that it was preferable to report it as a reduction in revenue, a determination with which he "wholeheartedly" agrees (*id.* at ¶ 27; tr. 7/45-46, 84).

3. *Nelson H. Shapiro*

Mr. Shapiro is a CPA who has worked with CAS since its inception, holding positions as a staff member, project director, associate director and executive secretary of the CAS Board. He participated in the development of all the standards, rules and regulations by the original CAS Board, including CAS 418 (tr. 6/276-78). He has extensive experience as a Government cost accounting consultant and

teacher in the private sector and is the author of many publications which relate to CAS issues (tr. 6/279-80). He has testified as an expert witness on numerous occasions at the ASBCA and in federal courts and in these appeals was qualified to testify as an expert in CAS and GAAP (tr. 6/281). (Shapiro report at ¶¶ 1-11)

Mr. Shapiro explained that, in its 1977 RESTATEMENT OF OBJECTIVES, POLICIES AND CONCEPTS, the CAS Board expressed its primary objectives as obtaining uniformity and consistency in cost accounting practices (*id.* tab 8 at 4029; tr. 6/312-13). He is of the opinion that the Government's position is contrary to CAS and GAAP (Shapiro report at ¶ 15). He believes that Pratt's accounting complies with CAS 410, 418 and 420 and that a collaborator's revenue share should not be included in Pratt's cost input allocation bases and, further, that it "actually is precluded from inclusion in the base[s] . . ." (tr. 6/283-84).

He concluded that collaboration parts are not assets to Pratt because under paragraph 168 of FASB Statement of Financial Accounting Concepts No. 6, the parts have no future economic benefit for Pratt inasmuch as it does not obtain title to the parts, if at all, until the time of sale. In his view, under GAAP, since an asset has not been acquired, no cost has been incurred. (Shapiro report at ¶ 17; tr. 6/284-87) Professor Siegel disagrees. He reads paragraphs 25 and 26 of FASB Statement of Financial Accounting Concepts No. 6 to indicate that the transaction or other event that triggers the characteristics of an asset is the delivery of the parts and that title is irrelevant (R4, tab 632 at ¶¶ 25, 26; tr. 11/7-14).

Mr. Shapiro explained that, for purposes of the CAS 410 and 418 allocation bases, CAS 410.30(a)(3) defines input as the cost "allocable to the production of goods and services" and, therefore, that cost is to be measured at the time of production, not at the time of the sale. That CAS 410.40(b) and 418.50(d)(1) require the allocation bases to be

representative of the activity during the accounting period further confirms his view that the cost input bases be comprised of costs associated with work-in-process because cost of sales bases are not representative of the activities of the period. (Shapiro report at ¶ 19; ex. A-21; tr. 6/289-300, 11/103-04) Thus, Mr. Shapiro considers the Government's position to be incorrect because it represents a view which the CAS Board specifically rejected and is based upon costs incurred at "the wrong time" (Shapiro report at ¶ 19, tab 2 at 16136; tr. 6/315-18, 323-24, 11/105-06). Mr. O'Donnell disagrees. It does not matter to him that the liability is not incurred until after production because he believes that a cost cannot be a cost input until it is incurred (tr. 11/62-63,67-68).

Mr. Shapiro recounted the history of CAS 410 and 418 and further explained that, when drafting CAS 410, the CAS Board rejected the use of value as a surrogate for cost in the cost input base for allocation of G&A because it had concluded that "cost input" best represented the total activity of a cost accounting period and the beneficial or causal relationship between G&A expenses and final cost objectives. He characterized the Government's use of "net revenue" as a cost to be an improper substitution of a surrogate value. (Shapiro report at 11 21-27, tabs 4, 5; tr. 6/300-03) He believes that the history of CAS 418 is "even more clear" and that the CAS Board "adopted the same position regarding surrogate values of materials used where no cost is incurred" (Shapiro report at ¶ 28, tab 6 at 11123, tab 7; tr. 6/303-05).

Having concluded that no cost for collaboration material is incurred by Pratt under GAAP, Mr. Shapiro further concluded that it is improper to assign net revenue as a surrogate value to these materials under CAS and include it in the cost input allocation bases for MOH, G&A and IR&D/B&P under CAS 410, 418 and 420 (Shapiro report at ¶129).

Finally, for purposes of CAS, Mr. Shapiro believes that Pratt's use of collaborator parts in its production activities is

the same as using customer furnished material (CFM) (Shapiro report at ¶ 20). He has the same view about collaboration parts and GFM (tr. 6/309- 10).

4. William T. Keevan

Mr. Keevan, a CPA, provides Government contract cost accounting consulting services to Government contractors, is an active member of the AICPA and other professional organizations, serves on a number of professional boards, committees and panels and is an author, frequent speaker and instructor on cost accounting issues. He has testified as an expert witness in the United States District Courts and elsewhere, including the ASBCA on at least five different occasions. (Keevan report at 17 4-16; tr. 9/99-103). He was qualified to testify as an expert in CAS, GAAP and cost accounting in these appeals (tr. 9/104).

Mr. Keevan, like Mr. Shapiro, is guided by the CAS Board's primary objectives of uniformity and consistency (Keevv report at ¶¶ 29-32). He also considers the CAS Board's objective of fairness to be applicable here (*id.* at 7 33). Like Mr. Shapiro, he believes that Pratt's exclusion of surrogate material values and net revenue share payments from its allocation bases complies with and is required by CAS because Pratt obtains the parts from its collaborators at no cost (Keevan report at 121; tr. 91106-07). He too believes that cost input means cost incurred by the contractor and that the regulatory history of CAS 410 establishes that CAS 410 does not permit a contractor to include values in a G&A cost allocation base (Keevan report at q123-30; tr. 9/106-09). And, he agrees with Mr. Shapiro that the same is true of the IR&D/B&P cost input base because CAS 420 and 410 are "interdependent regarding base composition" (Keevan report at ¶ 35). With respect to CAS 418, he explained that a material cost is defined by CAS 411, ACCOUNTING FOR ACQUISITION COST OF MATERIAL, as the "acquisition cost" or "purchase price" and the regulatory history of CAS 418

makes clear that values for GFM or CFM cannot be included in the material cost base (*id.* at ¶¶ 36-40; tr. 9/109-10).

Mr. Keevan reached a conclusion contrary to that of Mr. O'Donnell when applying the definition of cost contained in FASB Statement of Financial Accounting Concepts No. 6 to the revenue share payments made by Pratt to the collaborators. He is of the view that the payments do not represent a sacrifice of resources to which Pratt is otherwise entitled because Pratt and the collaborators have agreed to share revenues, risks and costs and the revenue share payments are not made until the engine or parts are sold. Rather, Mr. Keevan characterized the payments as a "pass through" of revenue to which only the collaborators were entitled. (Keevan report at ¶¶ 41-44, 58; tr. 9/111-12) According to Mr. Keevan, this is consistent with the fact that, under GAAP, in particular FASB Statement No. 45, a collaborator cannot record a sale when it delivers the parts to Pratt (tr. 9/113-16). He considers the accounting for consignments, where payment by a consignee to a consignor is not considered to be a cost to the consignee, to be a useful, and under GAAP a permissive, analogy (Keevan report at 7 59; tr. 9/116-18, 130).

Like Professor Horngren, Mr. Keevan believes that UTC could record Pratt's revenue share payments as either a reduction to sales or as cost of goods sold, but that the current treatment as a reduction in revenue is the preferable method because it reflects the economic substance of the transaction (tr. 91122-25, 129). Like Dr. Teese he considers the collaboration agreements to be strategic alliances, although he did not evaluate them using Dr. Teese's four dimensions (Keevan report at ¶¶ 47-53; tr. 9/144).

Mr. Keevan examined the relationship between Pratt and its collaborators from the view of "a businessman, an accountant and an auditor" and described it as a "collaborative relationship between parties working to

achieve the same objective" (tr. 9/144-45). He believes the collaboration agreements are more like partnering and joint venture agreements than subcontracts and that the pass through of revenues is closely analogous to the accounting for an undivided interest in a joint venture described in APB Opinion No. 18, THE EQUITY METHOD OF ACCOUNTING FOR INVESTMENTS IN COMMON STOCK, ACCOUNTING INTERPRETATION NO. 2, INVESTMENTS IN PARTNERSHIPS AND JOINT VENTURES, which provides that distribution of an undivided interest in a joint venture pursuant to which each venturer recognizes its pro rata share of the joint venture's income and liabilities does not constitute a cost (Keevan report at ¶ 58, tab 19 at 455-56; tr. 9/119-20, 130).

DISCUSSION

ASBCA Nos. 47416 and 50453

Pratt's claim in ASBCA No. 47416 and the Government's claim in ASBCA No. 50453 involve the allocation of Pratt's MOH, G&A and IR&D to commercial and Government contracts. The Government asserts that the collaborators are independent contractors and that the gross revenue shares are payments for the collaboration parts (Gov't br. at 54). Based upon the testimony of its experts, it argues that, under the GAAP definition of cost contained in FASB Statement of Financial Accounting Concepts No. 6, Pratt's payments to the collaborators are a cost. It further argues that the parts are an asset to Pratt and are neither consigned nor analogous to GFM.

According to the Government, Pratt has improperly excluded its cost for collaboration parts from the material cost base it uses to allocate MOH under CAS 418.50(d)(2) and 418.50(d)(2)(iv) and from the total cost input bases it uses to allocate G&A under CAS 410.50(d)(1) and IR&D under CAS 420.50(f)(2) (Gov't br. at 7-8). The Government bears the burden of proof on its CAS claims. *See Litton Systems, Inc.*,

Guidance and Control System Division, ASBCA Nos. 37131 and 37137, 94-2 BCA ¶ 26,731 at 133,022.

Pratt contends that its accounting for collaboration material complies with CAS. It first asserts that, because CAS does not explicitly cover accounting for collaboration revenue share distributions, there can be no CAS noncompliance. As to the merits of the Government's claim, Pratt asserts that, if CAS and GAAP apply, the economic substance of the transaction should determine the proper accounting and that the collaboration agreements are strategic alliances, not subcontracts. Its argument continues that, absent specific accounting guidance, the principles applicable to analogous economic arrangements, in this case joint ventures, should be applied and that under GAAP joint venture accounting, revenue distributions are not a cost.

It further asserts that, in any event, under GAAP, revenue share distributions are not a cost to Pratt and that to include revenue share in Pratt's allocation bases would contravene the CAS Board's prohibition against the use of surrogate values. Finally, it asserts that even if the revenue shares are a cost under CAS or GAAP, they are not an input cost and cannot be included in Pratt's cost input allocation bases. (App. br. vol. 4 at 14-15)

I. *The Contracts are Covered by CAS*

Pratt's first argument is that, given the Government's acknowledged lack of CAS guidance regarding accounting for revenue share distributions, the Government cannot prove that Pratt's accounting for collaboration materials violates CAS (app. br. vol. 4 at 17-18). The Government responds, and we agree, that Pratt has misstated its position. What the Government asserts is that, because the CAS Board rules and regulations do not define the term cost, the GAAP definition should be used to determine the items that should be included in Pratt's material cost base under CAS 418 and its total cost

input bases under CAS 410 for G&A and CAS 420 for IR&D/B&P. (Gov't resp. vol. 1 at 10)

The contracts that are the subject of these appeals are covered by the cost accounting standards promulgated by the CAS Board and the issues in these appeals involve the allocation of indirect expenses. Based upon the testimony of the Government's two accounting experts and three of Pratt's accounting experts (specifically, Professor Horngren and Messrs. Shapiro and Keevan), we are satisfied that it is appropriate to use the GAAP definition of cost found in footnote 19 to paragraph 26 of FASB Statement of Financial Accounting Concepts No. 6 as part of our analysis of the cost allocation issues. See FAR 31.20 1-2(a)(2) and (3) (factors to be considered in determining the allowability of costs include GAAP and allocability).

II. *The Collaboration Agreements Are Not Supplier Subcontracts*

The Government asserts that the collaboration agreements create independent [sub]contractor relationships in both form and substance. It contends that, under the law of business associations, the legal relationship established by the collaboration agreements can only be that of partners, joint venturers, or independent contractors because Pratt and the collaborators are separate legal entities with no affiliated ownership interests. It asserts that the collaboration agreements are a complex form of supplier subcontracts because they are neither partnerships, defined in § 6(1) of the Uniform Partnership Act (UPA) and § 101(4) of the Revised Uniform Partnership Act (RUPA) as an "association of two or more persons to carry on as co-owners a business for profit," nor joint ventures, defined in BLACK'S LAW DICTIONARY (5th ed. 1979), as a "legal entity in the nature of a partnership engaged in the joint prosecution of a particular transaction for mutual profit . . . ." (Gov't br. at 59-60)

It asserts that co-ownership and the sharing of profits are essential elements of a partnership and that both are missing from the collaboration agreements. It relies principally upon the provisions contained in the collaboration agreements which state that the relationship of the collaborators is that of "independent contractors" and the fact that no separate accounting entity was ever created to determine the profits of the collaboration efforts. It also points out that the Volvo agreement for the PW2000 program and the MTU agreement for the PW4000 program expressly disavow a principal and agent, partner, or joint venturer relationship.

It further contends that, under FASB Statement of Financial Accounting Concepts No. 5, profit is the difference between an accounting entity's revenues and expenses and that, here, there is no independent accounting entity. It notes that under § 7 of the UPA and § 202(c) of the RUPA, the sharing of profits is prima facie evidence of a partnership and that the sharing of "gross returns" does not create a presumption of a partnership (Gov't br. at 64).

The Government classifies the collaborators as subcontractors, defined in FAR 44.101 as ". . . any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime contractor or another subcontractor." It characterizes Pratt as a prime contractor because Pratt retains control over the sale and pricing of the engines, signs the contracts as seller, transfers title and receives full payment.

Pratt responds that the Government's interpretation of the collaboration agreements as subcontracts forces them into "rigidly-defined legal pigeonholes" which violate rules of accounting requiring that the economic substance of the transaction takes precedence over the Government's narrow view of the legal form (Pratt br. vol. 4 at 22).

While the Government acknowledges that determining the relationship between Pratt and its collaborators for purposes

of the cost accounting issues presented in these appeals involves the application of both legal and accounting principles (Gov't br. at 59), we are not persuaded that it has given adequate consideration to either. First, as Pratt asserts, the Government's reliance upon the single provision in the collaboration agreements that refers to the collaborators as independent contractors to the exclusion of the many other terms and conditions of these complex agreements violates basic rules of contract interpretation. *E.g., United Technologies Corp., Pratt & Whitney Group, Gov't Engines & Space Propulsion*, ASBCA Nos. 46880 and 46881, 97-1 BCA ¶ 28,818 at 143,798-99 (intention of the parties must be gathered from the contract as a whole).

Further, as we found above, the independent contractor language was included to make clear that employees of the collaborators were not employees or agents of Pratt. This finding is supported by the context of the agreements, and in particular the Volvo and MTU agreements, which contain specific employee disclaimers. Moreover, there is no evidence that the parties intended the independent contractor language (or the disavowal contained in the Volvo and MTU agreements) to mean that, for purposes of cost accounting, the collaboration agreements are subcontracts and the collaborators are simply the suppliers of parts. Indeed, Pratt's earlier attempt to characterize the JT10D program collaborators as subcontractors in order to recover some of its IR&D costs under DAR 15-205.35 was soundly rejected by the Navy's Deputy Assistant General Counsel (Acquisition) who characterized the relationship as "more on the order of a joint teaming agreement."

Second, the Government's contention that the collaboration agreements are subcontracts is based upon an unduly narrow reading of the definitions of partnership and joint venture. We are not persuaded that collaborators must be treated as subcontractors for cost accounting purposes simply because

they are not co-owners and have not established separate accounting entity for the sharing of profits. Indeed, while the sharing of profits may be a factor in determining whether there is a partnership, the UPA and RUPA both provide that the sharing of profits does not create the presumption of a partnership. In any event, as we discuss below, the profits of Pratt and its collaborators are very much intertwined. Moreover, contrary to the Government's contention, under paragraph 8 of International Accounting Standards Committee Statement 31, co-ownership is not an essential element of joint venture.

Further, as the Government itself acknowledges, there are other factors, including the sharing of benefits, risks and management, that are objective indicia of a partnership (Gov't br. at 65-66). *See* 1 BROMBERG & RIBSTEM, PARTNERSHIP § 2.14a (1988). In this case, there are many such objective indicia. As we discuss more fully below, a collaborator must pay substantial entry or catch-up fees to participate in a long-term collaboration arrangement. It bears its own costs and substantial risk (including the assumption of general liabilities) until the engines or spare parts are sold at which time the cost of the collaboration materials is determined and program expenses and Drag are deducted from the collaborator's program share distribution.

To be sure, Pratt has subcontractors which fall under the definition provided in FAR 44.101. Typically, these subcontractors provide parts to Pratt under short-term purchase orders or subcontracts that identify the part, a fixed quantity and a unit price with delivery and billing requirements, subject to specified terms and conditions. There are, however, fundamental differences between these subcontract arrangements and the collaboration agreements.

All three GAAP experts, Professors Siegel and Horngren, and Mr. Keevan, agreed that, under GAAP, the accounting should reflect the economic substance of the business

relationships and transactions. Here, an evaluation of the relationships and transactions between the collaborators resulting from the terms and conditions of the collaboration agreements establishes that, although Pratt has retained control over the marketing and sale of the engines and spare parts, signs the sales contracts and receives full payment from the customers, the collaborators, unlike Pratt's sub-contractors, have long-term business relationships with Pratt pursuant to which they share substantial program benefits and risks, including the overall success or failure of the program.

A. *The Collaborators Share Substantial Program Risks*

The evidence established that the collaborators share the risk of success or failure of the engine programs. Beginning with the separate MOA's executed in May 1973 with MTU and Fiat, Pratt's primary purpose in collaborating with foreign businesses has been to distribute the enormous financial risk associated with the development and marketing of new jet engines. The collaborators pay substantial, up-front, non-refundable program entry fees to Pratt, and catch-up fees if they join the program late. These fees determine the collaborator's percentage share of the production requirements, program expenses and revenues in accordance with long-term agreements (extending to [redacted] years).

The collaborators also pay program expenses which equal their respective revenue shares and are charged Drag. These program expense and Drag charges are substantial and include the cost of such items as [redacted], FIA, warranty, guarantees and service policies, FAA certification payments, post-certification engineering and development expenses, production assembly and testing, refurbishment expenses for certification and lease pool engines, foreign sales representatives, and Pratt's disproportionate and overheard expenses, including program management and administration, marketing and sales, product support and material handing.

Additionally, the collaboration agreements identify the part(s) the collaborator will be responsible for manufacturing, typically as its sole source, and require the parties to continue collaboration on the engine series and models. Although the parts are delivered to Pratt, title remains with the collaborator until the parts is sold, either as assembled in the engine or as spares, to the customer. No price for the parts is set by the collaboration agreements and Pratt does not include a value for them in its inventory accounts. Instead, Pratt assigns an MTC value for the parts until the price is established at the time of a final sale.

B. *The Collaborators Share Program Benefits*

Collaborators are given access to Pratt's proprietary business information and, in particular, to technology developed by Pratt to manufacture the engine part(s) assigned to them. In return, Pratt usually receives a worldwide, royalty-free licenses in the technology that the collaborators use in manufacturing the parts.

When an engine or spare part is sold, Pratt collects the total sales revenue and distributes it to the collaborators according to each collaborator's program share. In short, the collaborators share the sales revenue. There is no predetermined price for the parts a collaborator provides to Pratt and no payment for the parts is made when they are delivered to Pratt. Rather, the amount of the collaborator's gross revenue is based upon a its program share and is not determined until the engine or spare part is sold. Distribution of sales revenue is made to all collaborators, even when the sale involves parts manufactured by another collaborator. Deductions for the collaborator's share of program expenses and Drag are taken from its gross revenue.

C. *The Collaborations Are A Form of Collaborative Partnering*

On the basis of the foregoing, we are satisfied that the business relationships and transactions between the collaborators are a form of collaborative partnering because of the interrelated sharing of program risks and benefits. We are not persuaded, however, that it is necessary to categorize the collaborations as a specific legal entity in order to determine whether Pratt's accounting violates CAS requirements. Rather, given the peculiarities of the business relationships and transactions reflected in the collaboration agreements and the history and circumstances associated with them, we adopt the approach espoused by Professor Horngren, which urges that the economic substance of the relationship should determine the accounting, irrespective of the label attached to it by lawyers, economists and accountants.

We find Professor Horngren's opinion to be reasonable and reliable. *See Libas, Ltd. v. United States, supra.* It is in accordance with the AICPA SAS No. 69. It is supported by FASB Statement No. 48 and, by analogy, APB Opinion No. 21, both of which are top level GAAP. It is also recognized in lower level GAAP, including APB Statement No. 4, FASB Statement of Financial Accounting Concepts Nos. 2 and 6, International Accounting Standards Committee Statement No. 31, and other accounting literature, in particular the INTERMEDIATE ACCOUNTING textbook and the DCAA Audit Manual. *See also* JAMES P. BEDMGFIELD & LOUIS I. ROSEN, GOVERNMENT CONTRACT ACCOUNTING § 3C. (2d ed. 1985).

Further, Professor Horngren's approach was followed by Mr. Keevan in formulating his expert opinion. Indeed, even Professor Siegel acknowledged that the substance over form concept is generally applicable under GAAP and is "a good proposition."

III. *Pratt's Program Share Distributions Are Not A Cost For Parts Under GAAP and CAS*

Neither CAS nor GAAP provide explicit rules for accounting for the revenue share distributions made under the collaboration agreements. Where this is the circumstance, the three GAAP experts (Professors Siegel and Horngren and Mr. Keeven) all agree that the accountant should look for accounting principles that apply to analogous circumstances.

Based upon the economic substance of the collaboration agreements, Mr. Keevan thought that GAAP treatment for consignments and joint ventures could be applied. However, both he and Professor Horngren determined that the closest analogy for accounting for the business organizations reflected by the economic substance of the collaboration agreements is the joint venture. Both also concluded that it was appropriate under GAAP to account for the program revenue share distributions as if they were distributions of a joint venture interest, and not as payments for the cost of parts. The Government's various arguments have not persuaded us to the contrary.

A. *Collaboration Parts Are Like Consignment Parts*

Pratt treats collaboration materials as if they were consigned to it. In fact, the evidence established that both Pratt and the Government have characterized the parts as consignment parts for many years. The Government nevertheless relies upon the following definition of consignment from BLACK'S LAW DICTIONARY (5th ed. 1979) in asserting that the collaborators do not consign parts to Pratt

> Consignment of goods to another (consignee) for sale under agreement that consignee will pay consignor for any sold goods and will return any unsold goods. A bailment for sale.

(Gov't br. at 106)

The Government's main argument is that Pratt's treatment of collaboration parts as consigned material is a fiction because Pratt commingles them with other purchased parts and does not return them to the collaborators. It relies upon *In re Sitkin Smelting & Refining, Inc. v. G.M. Harrison*, 648 F.2d 252 (5th Cir. 1981), where the issue was whether Sitkin was a bailee or a purchaser of metals it recovered from industrial waste provided to it by the WESGO division of GTE under an agreement that provided for the purchase of the scrap material, "with payment in the form of a purchase price established by an agreed-upon formula or in refined metal of like kind and quality." 648 F.2d at 254. According to the Government, the court in *Sitkin* concluded the contract was one for the sale of scrap material because it was commingled with other material and could not be returned to WESGO (Gov't br. at 107-08)

As Pratt points out, however, the court further concluded that there was no "intention for WESGO to retain title to the scrap material . . . and title passed upon the delivery of the scrap to Sitkin" 648 F.2d at 254-55. Here, as we found, Pratt does not take title to the collaboration parts. Rather, when Pratt receives a collaboration part, it debits an inventory-consigned account and credits contra inventory-consigned at a one penny standard. We agree with Pratt that the fact that title remains with the collaborators distinguishes the agreements at issue in these appeals from the agreement in *Sitkin,* notwithstanding Pratt's practice of intermingling collaboration parts with purchased parts.

Moreover, the price of the parts is neither fixed nor determinable at the time of delivery and payment is contingent upon Pratt's sale to the customer. Thus, as Mr. Keevan explained, under FASB Statement No. 48, a collaborator cannot record a sale when it delivers a part to Pratt. *See also* Uniform Commercial Code (UCC)

§ 2-106(1)("A 'sale' consists in passing title from the buyer to the seller for a price")

B. *The Collaboration Parts Are Not Assets To Pratt*

The Government further contends that under paragraphs 25 and 26 of FASB Statement of Financial Accounting Concepts No. 6, the collaboration parts are an asset to Pratt because, once delivered, the parts bring an inflow of cash upon final sale to a customer, the term of which Pratt controls (Gov't br. at 110-11). The contention seemingly contradicts the guidelines established by FASB Statement of Accounting Standards No. 48 discussed above, which is authoritative GAAP.

In any event, as Mr. Shapiro explained, under paragraph 168 of FASB Statement of Financial Accounting Concepts No. 6, an item does not qualify as an asset under paragraph 25 if it does not involve future economic benefit. In this case, there is no probable future benefit to Pratt because, notwithstanding its interim control of the parts, Pratt never takes title to them. Contrary to Professor Siegel's view, delivery alone does not make a part an asset to Pratt, principally because, under FASB Statement No. 48, the collaborator cannot recognize a sale. Moreover, Pratt does not have the right to retain control over the future benefits flowing from the sale of collaboration parts. Rather, as Mr. Keevan characterized it, Pratt is obligated by the terms of the collaboration agreements to "pass though" program revenue share payment at the time of sale.

C. *Pratt Does Not Incur A Cost For Collaboration Parts*

The Government relies upon FASB Statement of Financial Accounting Concepts No. 6 for its definition of cost (an economic sacrifice to obtain goods and services) to support the assertion that Pratt incurs a cost for parts when it distributes program revenue share payments. As

Mr. O'Donnell testified, this is the same definition of cost used in *Riverside Research Institute*, 860 F.2d at 422.

Pratt responds, and we agree, that payment of a collaborator's program revenue share are is not an economic sacrifice because Pratt has no right to retain that share. Rather, consistent with our discussion above, the payments are more like a "pass through" because Pratt collects the sale price from the customers and distributes net program revenue share payments to the collaborators according to the terms of their agreements. Pratt does not treat the collaboration parts as a cost either when it records a sale or when it records the collection and distribution of the sale revenue.

The Government also points to the language contained in the collaboration agreements which provides that gross revenue shares will be paid "in consideration of the parts manufactured" as support for its contention that revenue distributions are a cost. As with its reliance upon the "independent contractor" language, the Government again has focused upon one provision in the collaboration agreements, this time failing to recognize all of the terms and conditions relating to the total benefit or detriment given in consideration for the payment. *E.g., Stone Forest Industries v. United States,* 973 F.2d 1548, 1552 (Fed. Cir. 1992) (presumption that each and every term and condition of a contract is in consideration of all others). Here, many of the terms and conditions of the collaboration agreements are relevant to the benefits and risks given "in consideration of the parts manufactured," in particular the provisions relating to program entry fees and catch-up payments and the deduction of specified program expenses and Drag.

The Government's final assertion is that Pratt previously considered revenue share payments to be costs. As we found above, however, while Pratt may have considered the option of treating payments as a cost, it also considered other accounting options. And with respect to the accounting

change in 1996, the preferability letter issued by Price Waterhouse to UTC established that the reclassification of the collaborators' share of revenue as a reduction of sales was the preferable classification because it provides consistency with the presentation of other financial aspects of the collaboration agreements. UTC disclosed the change in its 1996 annual report. Apart from the speculation of Professor Siegel, there is nothing in the record to suggest that the change was made for any other reason. Moreover, both Professor Horngren, who did so "wholeheartedly," and Mr. Keevan agreed that classification of the collaborator's share of revenue as a reduction of sales was the preferable classification.

D. *Conclusions*

We have concluded that the collaborators are not subcontractors to Pratt and that the program revenue share payments distributed by Pratt to them should not be treated as payment for the cost of the parts they manufacture. Accordingly, Pratt is not required to include revenue share payments distributed to its collaborators in its MOH allocation base under CAS 418.50(d)(2) or its G&A and IR&D/B&P total cost input bases under CAS 410.50(d)(1) and CAS 42050(f)(2). Pratt's accounting for collaboration parts complies with these CAS requirements.

IV. *Other Issues*

Having concluded that Pratt is not required to include revenue share payments to its collaborators in its indirect cost allocation bases under CAS 410, 418 and 420, the question of whether gross or net revenue share is the cost of the collaboration materials is moot. Pratt, however, expresses a concern that the question of whether some other value for these materials should be included in the allocation bases still remains. Relying principally upon the treatment of GFM as an analogy, it asserts that CAS prohibits the inclusion of surrogate values in a total cost input base. (App. br. vol.

4 at 92-99) The arguments raised by the Government on this issue are based upon its contention that collaboration material, unlike GFM, has a cost (gross revenue share), The Government, therefore, takes the position that: ". . . if the Board decides that collaboration parts have no cost, the parts will be excludable from the bases and . . . the entire GFW surrogate argument is immaterial. . . ." (Gov't br. at 124) We agree with the Government that Pratt's contentions regarding the GFW surrogate value issue are "superfluous."

Our conclusions also dispense with Pratt's other contentions that (a) a cost based upon revenue share payments cannot be measured at the proper time under CAS 410.30(a)(3) for reasons explained by Mr. Shapiro and (b) the Government's position is inconsistent with that taken with regard to the collaboration arrangements of other companies and to GFM.

Nor is it necessary to discuss Pratt's lengthy estoppel defense which asserts that the Government knew about the collaboration agreements and knew that, between 1983 and 1986, Pratt was proposing that a value be included for collaboration parts in the indirect cost allocation bases at MD, that the Government advised Pratt in 1986 that CAS 418 did not require it to include such a value, that the Government has known since Pratt's 1987 MD Disclosure Statements that Pratt does not include any value for collaboration material in its indirect cost allocation bares, that the Government intended for Pratt to rely, and Pratt did rely, upon its approval of the '1987 CAS Disclosure Statements (app. br.'vol. 4 at 124-61).

ASBCA No. 50888

In ASBCA No. 50888, Pratt asserts that the Government's 2 December 1996 final decision alleging CAS 410, 418 and 420 violations and demanding payment of some $260 million is a breach of the 8 February 1991 settlement agreement

pursuant to which it released a CAS 418 cost impact claim (app. br. vol. 4 at 163-64).

According to Pratt, the intent of the parties was to resolve all issues associated with the 7 April 1983 Final Determination of Noncompliance that had been raised and discussed. It asserts that the settlement not only addressed its net cost impact claim of $41 million for the changes imposed by CAS 418 relating to matters other than collaboration parts, but also that it resolved the issue of accounting for collaboration parts. It relies principally upon the language in paragraph 2 of the settlement agreement which states that the identified mandatory accounting changes "address and fully resolve" the 7 April 1983 Final Determination of Noncompliance and the absence of a reservations preserving any issue relating to MD's accounting treatment for collaboration parts in the settlement agreement drafted by the DACO, who Pratt asserts was aware that collaboration accounting was an issue.

The Government's position is that the clear language of the settlement agreement mandates a contrary conclusion. It relies upon paragraph 1 of the agreement which states that the agreement "pertain[s] solely to the mandatory and voluntary accounting changes" identified in the referenced 1987 Disclosure Statements, neither of which address issues relating to collaborative materials. It further argues that Pratt never implemented any CAS 418 changes to the manner in which it accounts for collaboration parts, that the 7 April 1983 Final Determination of Noncompliance made no reference to collaboration materials, and that the 1986 and 1987 Advance Agreements also do not mention them. It concludes that, after executing the settlement agreement, Pratt never once asserted that the issue had been resolved.

Pratt responds that the Government's contention that accounting for collaboration parts was not among the mandatory or voluntary changes implemented by Pratt misses

the point and that the issue is whether paragraph 2 of the settlement agreement precludes the Government from asserting a retroactive claim based upon the theory that CAS 418 required changes in addition to those Pratt implemented on 1 January 1988. It also asserts that post-agreement conduct of the parties shows that they believed that the cost impact of Pratt's accounting treatment of collaboration material was fully resolved.

In order to prevail upon its breach theory, Pratt must establish: (1) a valid contract; (2) an obligation or duty arising out of the contract; (3) a breach of that duty and (4) damages caused by the breach *Sun Carlos Irrigation and Drainage District v. United States,* 877 F.2d 957,959 (Fed. Cir. 1989). Here, it is not disputed that the 8 February 1991 settlement agreement was a valid contract. What is disputed, however is whether Pratt's accounting treatment of collaboration material was within the scope of the agreement. The dispute is one which raises issues of contract interpretation.

The underlying objective when interpreting a contract is to determine the parties intent, gathered from the instrument as a whole. *E.g., Alvin Ltd. v. United states Postal Service,* 816 F.2d 1562, 1565 (Fed. Cir. 1987). We are to look first at the express terms of the contract and their plain meaning. *C. Sanchez and Son, Inc. v. United States,* 6 F.3d1539, 1543 (Fed. Cir. 1993).

Here, the settlement agreement makes no mention of Pratt's accounting for collaboration parts. Paragraph 1 provides that the agreement pertains "solely to mandatory and voluntary accounting changes, set forth in" Disclosure Statements dated 6 March 1997 and 18 December 1997, as implemented on 1 January 1997 and 1 January1998. We found that the disclosure statements referenced provided revisions to earlier statements. While there was virtually no evidence about the revisions contained in the referenced disclosure statements, there was considerable evidence about

the "mandatory and voluntary accounting changes" Pratt implemented under CAS 418 and the record is clear that Pratt did not implement any changes under CAS 418 to the manner in which it accounted for collaboration parts. The 23 December 1986 and 22 December 1987 Advance Agreements, incorporated by reference in paragraph 3 of the settlement agreement, likewise make no reference to collaboration materials, Paragraph 2 of the settlement agreement focuses upon the mandatory changes Pratt implemented to resolve the CAS 418 Final Determination of Noncompliance issued on 7April 1983. In relying upon the words "address and fully resolve" contained in that paragraph to argue that the parties intended to include all CAS 418 noncompliances in the agreement, including those allegedly associated with its accounting for collaboration materials, Pratt improperly segregates these four words from the whole agreement and reads them out of context. See *Hol-Gar Mfg. Corp. v. United States*, 351 F.2d 972,975(Ct. C1. 1965).

Nevertheless, we are not persuaded that the settlement agreement is as plain as the Government asserts and both parties have resorted to extrinsic evidence to support their contentions. Pratt relies upon the early drafts of the agreement prepared by the DACO which contained a reservation of issues other than "the specific cost impact'' to support its contention that the issue of collaboration materials was resolved. The fact that the final version of the settlement agreement does not contain such a reservation, however, does not by itself establish that the parties intended to expand the settlement to include Prate's accounting treatment of collaboration materials. And, although he testified about other matters, Mr. Nichols did not testify about his intentions on this subject at the time he executed the agreement for Pratt. Further, we are unable to reconcile the DACO's testimony that he was "not aware of any issue with collaborations" when he executed the agreement with other evidence establishing that the issue was the subject of considerable

discussion and correspondence, the substance of which he was, or should have been a ware.

This is not a case in which evidence of the parties' conduct is "more revealing than the dry language of the written agreement by itself." *Macke Company v. United States,* 467 F.2d 1323,1325 (1972). The documentary evidence relied upon by the parties establishes that Pratt's accounting for collaboration materials was an issue both before and after the settlement. It does not, however, specifically relate to the settlement agreement and there was no testimony about the documentary evidence which provided insight into whether the parties intended to resolve the accounting issues associated with Pratt's collaboration parts when they executed the 8 February 1991 settlement agreement.

Hence, we conclude that Pratt did not establish that accounting for collaboration parts was within the scope of the 8 February 1991 settlement agreement. Having so concluded, we need not address whether the Government's 2 December 1996 Final Decision alleging a CAS 418 violation was a breach of that agreement or whether the Government's claim is barred by accord and satisfaction.

Under the release provisions of the settlement agreement, Pratt is precluded from seeking recovery of its cost impact claim for mandatory changes implemented under CAS 415 that were settled.

CONCLUSION

The appeals docketed as ASBCA Nos. 47416 and 50453 are sustained. The appeal docketed as ASBCA No. 50888 is denied.

Dated: 30 July 2001

APPENDIX D

STATUTORY PROVISIONS

41 U.S.C. § 422. Cost Accounting Standards Board

(a) Establishment; membership; terms

(1) There is established within the Office of Federal Procurement Policy an independent board to be known as the "Cost Accounting Standards Board" (hereinafter referred to as the "Board"). The Board shall consist of 5 members, including the Administrator, who shall serve as Chairman, and 4 members, all of whom shall have experience in Government contract cost accounting, and who shall be appointed as follows:

(A) two representatives of the Federal Government—

(i) one of whom shall be a representative of the Department of Defense and be appointed by the Secretary of Defense; and

(ii) one of whom shall be an officer or employee of the General Services Administration appointed by the Administrator of General Services; and

(B) two individuals from the private sector, each of whom shall be appointed by the Administrator and—

(i) one of whom shall be a representative of industry; and

(ii) one of whom shall be particularly knowledgeable about cost accounting problems and systems.

. . .

(f) Cost accounting standards authority

(1) The Board shall have the exclusive authority to make, promulgate, amend, and rescind cost accounting standards and interpretations thereof designed to achieve uni-

formity and consistency in the cost accounting standards governing measurement, assignment, and allocation of costs to contracts with the United States.

(2)(A) Cost accounting standards promulgated under this section shall be mandatory for use by all executive agencies and by contractors and subcontractors in estimating, accumulating, and reporting costs in connection with pricing and administration of, and settlement of disputes concerning, all negotiated prime contract and subcontract procurements with the United States in excess of $500,000.

. . .

(h) Implementing regulations

(1) The Board shall promulgate rules and regulations for the implementation of cost accounting standards promulgated or interpreted under subsection (f) of this section. Such regulations shall be incorporated into the Federal Acquisition Regulation and shall require contractors and subcontractors as a condition of contracting with the United States to—

(A) disclose in writing their cost accounting practices, including methods of distinguishing direct costs from indirect costs and the basis used for allocating indirect costs; and

(B) agree to a contract price adjustment, with interest, for any increased costs paid to such contractor or subcontractor by the United States by reason of a change in the contractor's or subcontractor's cost accounting practices or by reason of a failure by the contractor or subcontractor to comply with applicable cost accounting standards.

(2) If the United States and a contractor or subcontractor fail to agree on a contract price adjustment, including whether the contractor or subcontractor has complied with the applicable cost accounting standards, the disagreement will constitute a dispute under the Contract Disputes Act [41 U.S.C.A. § 601 et seq.].

REGULATORY PROVISIONS

48 C.F.R. PART 31—CONTRACT COST PRINCIPLES AND PROCEDURES

. . .

31.201-1 Composition of total cost.

(a) The total cost of a contract is the sum of the direct and indirect costs allocable to the contract, incurred or to be incurred, less any allocable credits, plus any allocable cost of money pursuant to 31.205-10. In ascertaining what constitutes a cost, any generally accepted method of determining or estimating costs that is equitable and is consistently applied may be used, including standard costs properly adjusted for applicable variances. See 31.201-2(b) and (c) for Cost Accounting Standards (CAS) requirements.

(b) While the total cost of a contract includes all costs properly allocable to the contract, the allowable costs to the Government are limited to those allocable costs which are allowable pursuant to part 31 and applicable agency supplements.

31.201-2 Determining allowability.

(a) The factors to be considered in determining whether a cost is allowable include the following:

(1) Reasonableness.

(2) Allocability.

(3) Standards promulgated by the CAS Board, if applicable; otherwise, generally accepted accounting principles and practices appropriate to the particular circumstances.

(4) Terms of the contract.

(5) Any limitations set forth in this subpart.

. . .

48 C.F.R. PART 9904—COST ACCOUNTING STANDARDS

9904.410 Allocation of Business Unit General and Administrative Expenses to Final Cost Objectives.

9904.410-20 Purpose.

The purpose of this Cost Accounting Standard is to provide criteria for the allocation of business unit general and administrative (G&A) expenses to business unit final cost objectives based on their beneficial or causal relationship. These expenses represent the cost of the management and administration of the business unit as a whole. The Standard also provides criteria for the allocation of home office expenses received by a segment to the cost objectives of that segment. This Standard will increase the likelihood of achieving objectivity in the allocation of expenses to final cost objectives and comparability of cost data among contractors in similar circumstances.

9904.410-30 Definitions.

(a) The following are definitions of terms which are prominent in this standard. Other terms defined elsewhere in this part 99 shall have the meanings ascribed to them in those definitions unless paragraph (b) of this section, requires otherwise.

(1) Allocate means to assign an item of cost or a group of items of cost, to one or more cost objectives. This term includes both direct assignment of cost and the reassignment of a share from an indirect cost pool.

(2) Business unit means any segment of an organization, or an entire business organization which is not divided into segments.

(3) Cost input means the cost, except G&A expenses, which for contract costing purposes is allocable to the production of goods and services during a cost accounting period.

(4) Cost objective means a function, organizational subdivision, contract or other work unit for which cost data are desired and for which provision is made to accumulate and measure the cost of processes, products, jobs, capitalized projects, etc.

(5) Final cost objective means a cost objective which has allocated to it both direct and indirect costs, and, in the contractor's accumulation systems, is one of the final accumulation points.

(6) General and administrative (G&A) expense means any management, financial, and other expense which is incurred by or allocated to a business unit and which is for the general management and administration of the business unit as a whole. G&A expense does not include those management expenses whose beneficial or causal relationship to cost objectives can be more directly measured by a base other than a cost input base representing the total activity of a business unit during a cost accounting period.

(7) Segment means one of two or more divisions, product departments, plants, or other subdivisions of an organization reporting directly to a home office, usually identified with responsibility for profit and/or producing a product or service. The terms include Government-owned contractor-operated (GOCO) facilities, and joint ventures and subsidiaries (domestic and foreign) in which the organization has a majority ownership. The term also includes those joint ventures and subsidiaries (domestic and foreign) in which the organization has less than a majority of ownership, but over which it exercises control.

(b) The following modifications of terms defined elsewhere in this chapter 99 are applicable to this Standard: None.

9904.410-40 Fundamental requirement.

(a) Business unit G&A expenses shall be grouped in a separate indirect cost pool which shall be allocated only to final cost objectives.

(b)(1) The G&A expense pool of a business unit for a cost accounting period shall be allocated to final cost objectives of that cost accounting period by means of a cost input base representing the total activity of the business unit except as provided in subparagraph (b)(2) of this subsection. The cost input base selected shall be the one which best represents the total activity of a typical cost accounting period.

(2) The allocation of the G&A expense pool to any particular final cost objectives which receive benefits significantly different from the benefits accruing to other final cost objectives shall be determined by special allocation (9904.410-50(j)).

(c) Home office expenses received by a segment shall be allocated to segment cost objectives as required by 9904.410-50(g).

(d) Any costs which do not satisfy the definition of G&A expense but which have been classified by a business unit as G&A expenses, can remain in the G&A expense pool unless they can be allocated to business unit cost objectives on a beneficial or causal relationship which is best measured by a base other than a cost input base.

9904.410-50 Techniques for application.

(a) G&A expenses of a segment incurred by another segment shall be removed from the incurring segment's G&A expense pool. They shall be allocated to the segment for

which the expenses were incurred on the basis of the beneficial or causal relationship between the expenses incurred and all benefiting or causing segments. If the expenses are incurred for two or more segments, they shall be allocated using an allocation base common to all such segments.

(b) The G&A expense pool may be combined with other expenses for allocation to final cost objectives provided that—

(1) The allocation base used for the combined pool is appropriate both for the allocation of the G&A expense pool under this Standard and for the allocation of the other expenses; and

(2) Provision is made to identify the components and total of the G&A expense pool separately from the other expenses in the combined pool.

(c) Expenses which are not G&A expenses and are insignificant in amount may be included in the G&A expense pool for allocation to final cost objectives.

(d) The cost input base used to allocate the G&A expense pool shall include all significant elements of that cost input which represent the total activity of the business unit. The cost input base selected to represent the total activity of a business unit during a cost accounting period may be: Total cost input; value-added cost input; or single element cost input. The determination of which cost input base best represents the total activity of a business unit must be judged on the basis of the circumstances of each business unit.

(1) A total cost input base is generally acceptable as an appropriate measure of the total activity of a business unit.

(2) Value-added cost input shall be used as an allocation base where inclusion of material and subcontract costs would significantly distort the allocation of the G&A expense pool in relation to the benefits received, and where costs other than

direct labor are significant measures of total activity. A value-added cost input base is total cost input less material and subcontract costs.

(3) A single element cost input base; e.g., direct labor hours or direct labor dollars, which represents the total activity of a business unit may be used to allocate the G&A expense pool where it produces equitable results. A single element base may not produce equitable results where other measures of activity are also significant in relation to total activity. A single element base is inappropriate where it is an insignificant part of the total cost of some of the final cost objectives.

(e) Where, prior to the effective date of this Standard, a business unit's disclosed or established cost accounting practice was to use a cost of sales or sales base, that business unit may use the transition method set out in appendix A hereof.

(f) Cost input shall include those expenses which by operation of this Standard are excluded from the G&A expense pool and are not part of a combined pool of G&A expenses and other expenses allocated using the same allocation base.

(g)(1) Allocations of the home office expenses of: (i) Line management of particular segments or groups of segments, (ii) residual expenses, and (iii) directly allocated expenses related to the management and administration of the receiving segment as a whole, shall be included in the receiving segment's G&A expense pool.

(2) Any separate allocation of the expenses of home office centralized service functions, staff management of specific activities of segments, and central payments or accruals, which is received by a segment, shall be allocated to the segment cost objectives in proportion to the beneficial or causal relationship between the cost objectives and the expense if such allocation is significant in amount. Where a beneficial or causal relationship for the expense is not

identifiable with segment cost objectives, the expense may be included in the G&A expense pool.

(h) Where a segment performs home office functions and also performs as an operating segment having a responsibility for final cost objectives, the expense of the home office functions shall be segregated. These expenses shall be allocated to all benefiting or causing segments, including the segment performing the home office functions, pursuant to disclosed or established accounting practices for the allocation of home office expenses to segments.

(i) For purposes of allocating the G&A expense pool, items produced or worked on for stock or product inventory shall be accounted for as final cost objectives in accordance with the following paragraphs:

(1) Where items are produced or worked on for stock or product inventory in a given cost accounting period, the cost input to such items in that period shall be included only once in the computation of the G&A expense allocation base and in the computation of the G&A expense allocation rate for that period and shall not be included in the computation of the base or rate for any other cost accounting period.

(2) A portion of the G&A expense pool shall be allocated to items produced or worked on for stock or product inventory in the cost accounting period or periods in which such items are produced at the rates determined for such periods except as provided in subparagraph (i)(3) of this subsection.

(3) Where the contractor does not include G&A expense in inventory as part of the cost of stock or product inventory items, the G&A rate of the cost accounting period in which such items are issued to final cost objectives may be used to determine the G&A expenses applicable to issues of stock or product inventory items.

(j) Where a particular final cost objective in relation to other final cost objectives receives significantly more or less benefit from G&A expense than would be reflected by the allocation of such expenses using a base determined pursuant to paragraph (d) of this subsection, the business unit shall account for this particular final cost objective by a special allocation from the G&A expense pool to the particular final cost objective commensurate with the benefits received. The amount of a special allocation to any such final cost objective shall be excluded from the G&A expense pool required by 9904.410- 40(a), and the particular final cost objective's cost input data shall be excluded from the base used to allocate this pool.

9904.410-60 Illustrations.

(a) Business Unit A has been including the cost of scientific computer operations in its G&A expense pool. The scientific computer is used predominantly for research and development, rather than for the management and administration of the business unit as a whole. The costs of the scientific computer operation do not satisfy the Standard's definition of G&A expense; however, they may remain in the G&A expense pool unless they can be allocated to business unit cost objectives on a beneficial or causal relationship which is best measured by a base other than a cost input base representing the total activity of a business unit during a cost accounting period.

(b) Segment B performs a budgeting function, the cost of which is included in its G&A expense pool. This function includes the preparation of budgets for another segment. The cost of preparing the budgets for the other segment should be removed from B's G&A expense pool and transferred to the other segment.

(c)(1) Business Unit C has a personnel function which is divided into two parts: A vice president of personnel who

establishes personnel policy and overall guidance, and a personnel department which handles hirings, testing, evaluations, etc. The expense of the vice president is included in the G&A expense pool. The expense of the personnel department is allocated to the other indirect cost pools based on the beneficial or causal relationship between that expense and the indirect cost pools. This procedure is in compliance with the requirements of this Standard.

(2) Business Unit C has included selling costs as part of its G&A expense pool. Unit C wishes to continue to include selling costs in its G&A pool. Under the provisions of this Standard, Unit C may continue to include selling costs in its G&A pool, and these costs will be allocated over a cost input base selected in accordance with the provisions of 9904.410-50(d).

(3) Business Unit C has included IR&D and B&P costs in its G&A expense pool. Unit C has used a cost of sales base to allocate its G&A expense pool. As of January 1, 1978 (assumed for purposes of this illustration), the date on which Unit C must first allocate its G&A expense pool in accordance with the requirements of this Standard, Unit C has among its final cost objectives several cost reimbursement contracts and fixed price contracts subject to the CAS clause (referred to as the preexisting contracts). If Unit C chooses to use the transition method in 9904.410-50(e):

(i) Unit C shall allocate IR&D and B&P costs during the transition period (from January 1, 1978, to and including the cost accounting period during which the preexisting contracts are completed), to the preexisting contracts as part of its G&A expense pool using a cost of sales base pursuant to 9904.410-50(e) and appendix A to 9904.410.

(ii) During the transition period such costs, as part of the G&A expense pool, shall be allocated to new cost reimbursement contracts and new fixed price contracts subject

to the CAS clause using a cost input base as required by 9904.410-50 (d) and (e) and appendix A to 9904.410.

(iii) Beginning with the cost accounting period after the transition period the IR&D and B&P costs, as part of the G&A expense pool, shall be allocated to all final cost objectives using a cost input base as required by 9904.410-50(d). If Unit C chooses not to use the transition method in 9904.410-50(e), the contractual provision requiring appropriate equitable adjustment of the prices of affected prime contracts and subcontracts will be implemented.

(4) Business Unit C has accounted for and allocated IR&D and B&P costs in a cost pool separate and apart from the G&A expense pool. Unit C may continue to account for these costs in a separate cost pool under the provision of this Standard. If Unit C is to use a total cost input base, these costs when accounted for and allocated in a cost pool separate and apart from the G&A expense pool will become part of the total cost input base used by Unit C to allocate the G&A expense pool.

(5) Business Unit C has included selling costs as part of its G&A expense pool. Unit C has used a cost of sales base to allocate the G&A expense pool. Unit C desires to continue to allocate selling costs using the costs of sales base. Under the provisions of this Standard, Unit C would account for selling costs as a cost pool separate and apart from the G&A expense pool, and continue to allocate these costs over a cost of sales base. If Unit C uses a total cost input base to allocate the G&A expense pool, the selling costs will become part of the total cost input base.

(d)(1) Business Unit D has accounted for selling costs in a cost pool separate and apart from its G&A expense pool and has allocated these costs using a cost of sales base. Under the provisions of this Standard, Unit D may continue to account for those costs in a separate pool and allocate them using a cost of sales base. Unit D has a total cost input base to

allocate its G&A expense pool. The selling costs will become part of the cost input base used by Unit D to allocate the G&A expense pool.

(2) During a cost accounting period, Business Unit D buys $2,000,000 of raw materials. At the end of that cost accounting period, $500,000 of raw materials inventory have not been charged out to contracts or other cost objectives. The $500,000 of raw materials are not part of the total cost input base for the cost accounting period, because they have not been charged to the production of goods and services during that period. If all of the $2,000,000 worth of raw material had been charged to cost objectives during the cost accounting period, the cost input base for the allocation of the G&A expense pool would include the entire $2,000,000.

(3) Business Unit D manufactures a variety of testing devices. During a cost accounting period, Unit D acquires and uses a small building, constructs a small production facility using its own resources, and keeps for its own use one unit of a testing device that it manufactures and sells to its customers. The acquisition cost of the building is not part of the total cost input base; however, the depreciation taken on the building would be part of the total cost input base. The costs of construction of the small production facility are not part of the total cost input base. The requirements of 9904.404 provide that those G&A expenses which are identifiable with the constructed asset and are material in amount shall be capitalized as part of the cost of the production facility. If there are G&A expenses material in amount and identified with the constructed asset, these G&A expenses would be removed from the G&A expense pool prior to the allocation of this pool to final cost objectives. The cost of the testing device shall be part of the total cost input base per the requirements of 9904.404 which provides that the costs of constructed assets identical with the contractor's regular product shall include a full share of indirect cost.

(e)(1) Business Unit E produces Item Z for stock or product inventory. The business unit does not include G&A expense as part of the inventory cost of these items for costing or financial reporting purposes. A production run of these items occurred during Cost Accounting Period 1. A number of the units produced were not issued during Period 1 and are issued in Period 2. However, those units produced in Period 1 shall be included in the cost input of that period for calculating the G&A expense allocation base and shall not be included in the cost input of Period 2.

(2) Business Unit E should apply the G&A expense rate of Period 1 to those units of Item Z issued during Period 1 and may apply the rate of Period 2 to the units issued in Period 2.

(3) If the practice of Business Unit E is to include G&A expense as part of the cost of stock or product inventory, the inventory cost of all units of Item Z produced in Period 1 and remaining in inventory at the end of Period 1, should include G&A expense using the G&A rate of Period 1.

(f)(1) Business Unit F produced Item X for stock or product inventory. The business unit does not include G&A expense as part of the inventory cost of these items. A production run of these items was started, finished, and placed into inventory in a single cost accounting period. These items are issued during the next cost accounting period.

(2) The cost of items produced for stock or product inventory should be included in the G&A base in the same year they are produced. The cost of such items is not to be included in the G&A base on the basis of when they are issued to final cost objectives. Therefore, the time of issuance of these items from inventory to a final cost objective is irrelevant in computing the G&A base.

(g) The normal productive activity of Business Unit G includes the construction of base operating facilities for

others. Unit G uses a total cost input base to allocate G&A expense to final cost objectives. As part of a contract to construct an operating facility, Unit G agrees to acquire a large group of trucks and other mobile equipment to equip the base operating facility. Unit G does not usually supply such equipment. The cost of the equipment constitutes a significant part of the contract cost. A special G&A allocation to this contract shall be agreed to by the parties if they agree that in the circumstances the contract as a whole receives substantially less benefit from the G&A expense pool than that which would be represented by a cost allocation based on inclusion of the contract cost in the total cost input base.

(h)(1) The home office of Segment H separately allocates to benefiting or causing segments, significant home office expenses of staff management functions relative to manufacturing, staff management functions relative to engineering, central payment of health insurance costs, and residual expenses. Segment H receives these expenses as separate allocations and maintains three indirect cost pools; i.e., G&A expense, manufacturing overhead, and engineering overhead; all home office expenses allocated to Segment H are included in Segment H's G&A expense pool.

(2) This accounting practice of Segment H does not comply with 9904.410- 50(g)(2). Home office residual expenses should be in the G&A expense pool, and the expenses of the staff management functions relative to manufacturing and engineering should be included in the manufacturing overhead and engineering overhead pools, respectively. The health insurance costs should be allocated in proportion to the beneficial and causal relationship between these costs and Segment H's cost objectives.

9904.418 Allocation of direct and indirect costs.

9904.418-20 Purpose.

The purpose of this Cost Accounting Standard is to provide for consistent determination of direct and indirect costs; to provide criteria for the accumulation of indirect costs, including service center and overhead costs, in indirect cost pools; and, to provide guidance relating to the selection of allocation measures based on the beneficial or causal relationship between an indirect cost pool and cost objectives. Consistent application of these criteria and guidance will improve classification of costs as direct and indirect and the allocation of indirect costs.

9904.418-30 Definitions.

(a) The following are definitions of terms which are prominent in this Standard. Other terms defined elsewhere in this chapter 99 shall have the meanings ascribed to them in those definitions unless paragraph (b) of this subsection, requires otherwise.

(1) Allocate means to assign an item of cost, or a group of items of cost, to one or more cost objectives. This term includes both direct assignment of cost and the reassignment of a share from an indirect cost pool.

(2) Direct cost means any cost which is identified specifically with a particular final cost objective. Direct costs are not limited to items which are incorporated in the end product as material or labor. Costs identified specifically with a contract are direct costs of that contract. All costs identified specifically with other final cost objectives of the contractor are direct costs of those cost objectives.

(3) Indirect cost means any cost not directly identified with a single final cost objective, but identified with two or more final cost objectives or with at least one intermediate cost objective.

(4) Indirect cost pool means a grouping of incurred costs identified with two or more cost objectives but not identified specifically with any final cost objective.

(b) The following modifications of terms defined elsewhere in this chapter 99 are applicable to this Standard: None.

9904.418-40 Fundamental requirements.

(a) A business unit shall have a written statement of accounting policies and practices for classifying costs as direct or indirect which shall be consistently applied.

(b) Indirect costs shall be accumulated in indirect cost pools which are homogeneous.

(c) Pooled costs shall be allocated to cost objectives in reasonable proportion to the beneficial or causal relationship of the pooled costs to cost objectives as follows:

(1) If a material amount of the costs included in a cost pool are costs of management or supervision of activities involving direct labor or direct material costs, resource consumption cannot be specifically identified with cost objectives. In that circumstance, a base shall be used which is representative of the activity being managed or supervised.

(2) If the cost pool does not contain a material amount of the costs of management or supervision of activities involving direct labor or direct material costs, resource consumption can be specifically identified with cost objectives. The pooled cost shall be allocated based on the specific identifiability of resource consumption with cost objectives by means of one of the following allocation bases:

(i) A resource consumption measure,

(ii) An output measure, or

(iii) A surrogate that is representative of resources consumed. The base shall be selected in accordance with the criteria set out in 9904.418- 50(e).

(d) To the extent that any cost allocations are required by the provisions of other Cost Accounting Standards, such allocations are not subject to the provisions of this Standard.

(e) This Standard does not cover accounting for the costs of special facilities where such costs are accounted for in separate indirect cost pools.

9904.418-50 Techniques for application.

(a) Determination of direct cost and indirect cost.

(1) The business unit's written policy elassifying costs as direct or indirect shall be in conformity with the requirements of this Standard.

(2) In accounting for direct costs a business unit shall use actual costs, except that—

(i) Standard costs for material and labor may be used as provided in 9904.407; or

(ii) An average cost or pre-established rate for labor may be used provided that

(A) The functions performed are not materially disparate and employees involved are interchangeable with respect to the functions performed, or

(B) The functions performed are materially disparate but the employees involved either all work in a single production unit yielding homogeneous outputs, or perform their respective functions as an integral team. Whenever average cost or pre-established rates for labor are used, the variances, if material, shall be disposed of at least annually by allocation to cost objectives in proportion to the costs previously allocated to these cost objectives.

(3) Labor or material costs identified specifically with one of the particular cost objectives listed in paragraph (d)(3) of this subsection shall be accounted for as direct labor or direct material costs.

(b) Homogeneous indirect cost pools.

(1) An indirect cost pool is homogeneous if each significant activity whose costs are included therein has the same or a similar beneficial or causal relationship to cost objectives as the other activities whose costs are included in the cost pool. It is also homogeneous if the allocation of the costs of the activities included in the cost pool result in an allocation to cost objectives which is not materially different from the allocation that would result if the costs of the activities were allocated separately.

(2) An indirect cost pool is not homogeneous if the costs of all significant activities in the cost pool do not have the same or a similar beneficial or causal relationship to cost objectives and, if the costs were allocated separately, the resulting allocation would be materially different. The determination of materiality shall be made using the criteria provided in 9903.305.

(3) A homogeneous indirect cost pool shall include all indirect costs identified with the activity to which the pool relates.

(c) Change in Allocation Base. No change in an existing indirect cost pool allocation base is required if the allocation resulting from the existing base does not differ materially from the allocation that results from the use of the base determined to be most appropriate in accordance with the criteria set forth in paragraphs (d) and (e) of this subsection. The determination of materiality shall be made using the criteria provided in Subpart 9903.305.

(d) Allocation measures for an indirect cost pool which includes a material amount of the costs of management or

supervision of activities involving direct labor or direct material costs.

(1) The costs of the management or supervision of activities involving direct labor or direct material costs do not have a direct and definitive relationship to the benefiting cost objectives and cannot be allocated on measures of a specific beneficial or causal relationship. In that circumstance, the base selected to measure the allocation of the pooled costs to cost objectives shall be a base representative of the activity being managed or supervised.

(2) The base used to represent the activity being managed or supervised shall be determined by the application of the criteria below. All significant elements of the selected base shall be included.

(i) A direct labor hour base or direct labor cost base shall be used, whichever in the aggregate is more likely to vary in proportion to the costs included in the cost pool being allocated, except that:

(ii) A machine-hour base is appropriate if the costs in the cost pool are comprised predominantly of facility-related costs, such as depreciation, maintenance, and utilities; or

(iii) A units-of-production base is appropriate if there is common production of comparable units; or

(iv) A material cost base is appropriate if the activity being managed or supervised is a material-related activity.

(3) Indirect cost pools which include material amounts of the costs of management or supervision of activities involving direct labor or direct material costs shall be allocated to:

(i) Final cost objectives;

(ii) Goods produced for stock or product inventory;

(iii) Independent research and development and bid and proposal projects;

(iv) Cost centers used to accumulate costs identified with a process cost system (i.e., process cost centers);

(v) Goods or services produced or acquired for other segments of the contractor and for other cost objectives of a business unit; and

(vi) Self-construction, fabrication, betterment, improvement, or installation of tangible capital assets.

(e) Allocation measures for indirect cost pools that do not include material amounts of the costs of management or supervision of activities involving direct labor or direct material costs. Homogeneous indirect cost pools of this type have a direct and definitive relationship between the activities in the pool and benefiting cost objectives. The pooled costs shall be allocated using an appropriate measure of resource consumption. This determination shall be made in accordance with the following criteria taking into consideration the individual circumstances:

(1) The best representation of the beneficial or causal relationship between an indirect cost pool and the benefiting cost objectives is a measure of resource consumption of the activities of the indirect cost pool.

(2)(i) If consumption measures are unavailable or impractical to ascertain, the next best representation of the beneficial or causal relationship for allocation is a measure of the output of the activities of the indirect cost pool. Thus, the output is substituted for a direct measure of the consumption of resources.

(ii) The use of the basic unit of output will not reflect the proportional consumption of resources in circumstances in which the level of resource consumption varies among the units of output produced. Where a material

difference will result, either the output measure shall be modified or more than one output measure shall be used to reflect the resources consumed to perform the activity.

(3) If neither resources consumed nor output of the activities can be measured practically, a surrogate that varies in proportion to the services received shall be used to measure the resources consumed. Generally, such surrogates measure the activity of the cost objectives receiving the service.

(4) Allocation of indirect cost pools which benefit one another may be accomplished by use of:

(i) The cross-allocation (reciprocal) method,

(ii) The sequential method, or

(iii) Another method the results of which approximate those achieved by either of the methods in subdivisions (e)(4)(i) or (e)(4)(ii) of this subsection.

(5) Where the activities represented by an indirect cost pool provide services to two or more cost objectives simultaneously, the cost of such services shall be prorated between or among the cost objectives in reasonable proportion to the beneficial or causal relationship between the services and the cost objectives.

(f) Special allocation. Where a particular cost objective in relation to other cost objectives receives significantly more or less benefit from an indirect cost pool than would be reflected by the allocation of such costs using a base determined pursuant to paragraphs (d) and (e) of this subsection, the Government and contractor may agree to a special allocation from that indirect cost pool to the particular cost objective commensurate with the benefits received. The amount of a special allocation to any such cost objective made pursuant to such an agreement shall be excluded from the indirect cost pool and the particular cost objective's allocation base data shall be excluded from the base used to allocate the pool.

(g) Use of preestablished rates for indirect costs.

(1) Preestablished rates, based on either forecasted actual or standard cost, may be used in allocating an indirect cost pool.

(2) Preestablished rates shall reflect the costs and activities anticipated for the cost accounting period except as provided in paragraph (g)(3) of this subsection. Such preestablished rates shall be reviewed at least annually, and revised as necessary to reflect the anticipated conditions.

(3) The contracting parties may agree on preestablished rates which are not based on costs and activities anticipated for a cost accounting period. The contractor shall have and consistently apply written policies for the establishment of these rates.

(4) Under paragraphs (g)(2) and (3) of this subsection where variances of a cost accounting period are material, these variances shall be disposed of by allocating them to cost objectives in proportion to the costs previously allocated to these cost objectives by use of the preestablished rates.

(5) If preestablished rates are revised during a cost accounting period and if the variances accumulated to the time of the revision are significant, the costs allocated to that time shall be adjusted to the amounts which would have been allocated using the revised preestablished rates.

9904.418-60 Illustrations.

(a) Business Unit A has various classifications of engineers whose time is spent in working directly on the production of the goods or services called for by contracts and other final cost objectives. In keeping with its written policy, detailed time records are kept of the hours worked by these engineers, showing the job/account numbers representing various cost objectives. On the basis of these detailed time records, Unit A allocates the labor costs of these engineers as direct labor

costs of final cost objectives. This practice is in accordance with the requirements of 9904.418-50(a)(1).

(b) Business Unit B has a fabrication department, employees of which perform various functions on units of the work-in-process of multiple final cost objectives. These employees are grouped by labor skills and are interchangeable within the skill grouping. The average wage rate for each group is multiplied by the hours worked on each cost objective by employees in that group. The contractor classifies these costs as direct labor costs of each final cost objective. This cost accounting treatment is in accordance with the provisions of 9904.418-50(a)(2)(ii)(B).

(c) Business Unit C accumulates the costs relating to building ownership, maintenance, and utility into one indirect cost pool designated "Occupancy Costs" for allocation to cost objectives. Each of these activities has the same or a similar beneficial or causal relationship to the cost objectives occupying a space. Unit C's practice is in conformance with the provisions of 9904.418-50(b)(1).

(d) Business Unit D includes the indirect costs of machining and assembling activities in a single manufacturing overhead pool. The machining activity does not have the same or similar beneficial or causal relationship to cost objectives as the assembling activity. Also, the allocation of the cost of the machining activity to cost objectives would be significantly different if allocated separately from the cost of the assembling activity. Unit D's single manufacturing overhead pool is not homogeneous in accordance with the provisions of 9904.418-50(b), and separate pools must be established in accordance with 9904.418-40(b).

(e) In accordance with 9904.418-50(b)(3), Business Unit E includes all the cost of occupancy in an indirect cost pool. In selecting an allocation measure for this indirect cost pool, the contractor establishes that it is impractical to ascertain a

measurement of the consumption of resources in relation to the use of facilities by individual cost objectives. An output base, the number of square feet of space provided to users, can be measured practically; however, the cost to provide facilities is significantly different for various types of facilities such as warehouse, factory, and office and each type of facility requires a different level of resource consumption to provide the same number of square feet of usable space. Allocation on a basic unit measure of square feet of space occupied will not adequately reflect the proportional consumption of resources. Unit E establishes a weighted square foot measure for allocating occupancy costs, which reflects the different levels of resource consumption required to provide the different types of facilities. This practice is in conformance with provisions of 9904.418-50(e)(2)(ii).

(f) Business Unit F has an indirect cost pool containing a significant amount of material-related costs. The contractor allocates these costs between his machining overhead cost pool and his assembly overhead cost pool. The business unit finds it impractical to use an allocation measure based on either consumption or output. The business unit selects a dollars of material-issued base which varies in proportion to the services rendered. The dollars of material-issued base is a surrogate base which conforms to the provisions of 9904.418-50(e)(3).

(g) Business Unit G has a machining activity for which it develops a separate overhead rate, using direct labor cost as the allocation base. The machining activity occasionally does significant amounts of work for other activities of the business unit. The labor used in doing the work for other activities is of the same nature as that used for contract work. However, the machining labor for other activities is not included in the base used to allocate the overhead costs of the machining activity. This practice is not in conformance with 9904.418-50(d)(2). Unit G must include the cost of labor

doing work for the other activities in the allocation base for the machining activity indirect cost pool.

(h) Business Unit H accounts for the costs of company aircraft in a separate homogeneous indirect cost pool and allocates the cost to benefiting cost objectives using flight hours. Unit H prorates the cost of a single flight between benefiting cost objectives whenever simultaneous services have been rendered. Manager of Contract 2 learns of the trip and goes along with Manager of Contract 1. Unit H prorates the cost of the trip between Contract 1 and Contract 2. This practice is in conformance with the provision of 9904.418-50(e)(5).

(i) During a cost accounting period, Business Unit I allocates the cost of its flight services indirect cost pool to other indirect cost pools and final cost objectives using a preestablished rate. The preestablished rate is based on an estimate of the actual costs and activity for the cost accounting period. For the cost accounting period, Unit I establishes a rate of $200 per hour for use of the flight services activity. In March, the contractor's operating environment changes significantly; the contractor now expects a significant increase in the cost of this activity during the remainder of the year. Unit I estimates the rate for the entire cost accounting period to be $240 an hour. Pursuant to the provisions of 9904.418-50(g)(4), the Business Unit may revise its rate to the expected $240 an hour. If the accumulated variances are significant, the business unit must also adjust the costs previously allocated to reflect the revised rates.

9904.420 Accounting for independent research and development costs and bid and proposal costs.

9904.420-20 Purpose.

The purpose of this Cost Accounting Standard is to provide criteria for the accumulation of independent research and development costs and bid and proposal costs and for the

allocation of such costs to cost objectives based on the beneficial or causal relationship between such costs and cost objectives. Consistent application of these criteria will improve cost allocation.

9904.420-30 Definitions.

(a) The following are definitions of terms which are prominent in this Standard. Other terms defined elsewhere in this Chapter 99 shall have the meanings ascribed to them in those definitions unless paragraph (b) of this subsection, requires otherwise.

(1) Allocate means to assign an item of cost, or a group of items of cost, to one or more cost objectives. This term includes both direct assignment of cost and the reassignment of a share from an indirect cost pool.

(2) Bid and proposal (B&P) cost means the cost incurred in preparing, submitting, or supporting any bid or proposal which effort is neither sponsored by a grant, nor required in the performance of a contract.

(3) Business unit means any segment of an organization, or an entire business organization which is not divided into segments.

(4) General and administrative (G&A) expense means any management, financial, and other expenses which is incurred by or allocated to a business unit and which is for the general management and administration of the business unit as a whole. G&A expense does not include those management expenses whose beneficial or causal relationship to cost objectives can be more directly measured by a base other than a cost input base representing the total activity of a business unit during a cost accounting period.

(5) Home office means an office responsible for directing or managing two or more, but not necessarily all, segments of an organization. It typically establishes policy for,

and provides guidance to the segments in their operations. It usually performs management, supervisory, or administrative functions, and may also perform service functions in support of the operations of the various segments. An organization which has intermediate levels, such as groups, may have several home offices which report to a common home office. An intermediate organization may be both a segment and a home office.

(6) Independent research and development means the cost of effort which is neither sponsored by a grant, nor required in the performance of a contract, and which falls within any of the following three areas:

(i) Basic and applied research,

(ii) Development, and

(iii) Systems and other concept formulation studies.

(7) Indirect cost means any cost not directly identified with a single final cost objective, but identified with two or more final cost objectives or with at least one intermediate cost objective.

(8) Segment means one of two or more divisions, product departments, plants, or other subdivisions of an organization reporting directly to a home office, usually identified with responsibility for profit and/or producing a product or service. The term includes Government-owned contractor-operated (GOCO) facilities, and joint ventures and subsidiaries (domestic and foreign) in which the organization has a majority ownership. The term also includes those joint ventures and subsidiaries (domestic and foreign) in which the organizations has less than a majority of ownership, but over which it exercises control.

(b) The following modifications of terms defined elsewhere in this Chapter 99 are applicable to this Standard: None.

9904.420-40 Fundamental requirement.

(a) The basic unit for the identification and accumulation of Independent Research and Development (IR&D) and Bid and Proposal (B&P) costs shall be the individual IR&D or B&P project.

(b) The IR&D and B&P project costs shall consist of all allocable costs, except business unit general and administrative expenses.

(c) The IR&D and B&P cost pools consist of all IR&D and B&P project costs and other allocable costs, except business unit general and administrative expenses.

(d) The IR&D and B&P cost pools of a home office shall be allocated to segments on the basis of the beneficial or causal relationship between the IR&D and B&P costs and the segments reporting to that home office.

(e) The IR&D and B&P cost pools of a business unit shall be allocated to the final cost objectives of that business unit on the basis of the beneficial or causal relationship between the IR&D and B&P costs and the final cost objectives.

(f)(1) The B&P costs incurred in a cost accounting period shall not be assigned to any other cost accounting period.

(2) The IR&D costs incurred in a cost accounting period shall not be assigned to any other cost accounting period, except as may be permitted pursuant to provisions of existing laws, regulations, and other controlling factors.

9904.420-50 Techniques for application.

(a) The IR&D and B&P project costs shall include (1) costs, which if incurred in like circumstances for a final cost objective, would be treated as direct costs of that final cost objective, and (2) the overhead costs of productive activities and other indirect costs related to the project based on the contractor's cost accounting practice or applicable Cost Accounting Standards for allocation of indirect costs.

(b) The IR&D and B&P cost pools for a segment consist of the project costs plus allocable home office IR&D and B&P costs.

(c) When the costs of individual IR&D or B&P efforts are not material in amount, these costs may be accumulated in one or more project(s) within each of these two types of effort.

(d) The costs of any work performed by one segment for another segment shall not be treated as IR&D costs or B&P costs of the performing segment unless the work is a part of an IR&D or B&P project of the performing segment. If such work is part of a performing segment's IR&D or B&P project, the project will be transferred to the home office to be allocated in accordance with paragraph (e) of this subsection.

(e) The costs of IR&D and B&P projects accumulated at a home office shall be allocated to its segments as follows:

(1) Projects which can be identified with a specific segment(s) shall have their costs allocated to such segment(s).

(2) The costs of all other IR&D and B&P projects shall be allocated among all segments by means of the same base used by the company to allocate its residual expenses in accordance with 9904.403; provided, however, where a particular segment receives significantly more or less benefit from the IR&D or B&P costs than would be reflected by the allocation of such costs to the segment by the base, the Government and the contractor may agree to a special allocation of the IR&D or B&P costs to such segment commensurate with the benefits received. The amount of a special allocation to any segment made pursuant to such an agreement shall be excluded from the IR&D and B&P cost pools to be allocated to other segments and the base data of any such segment shall be excluded from the base used to allocate these pools.

(f) The costs of IR&D and B&P projects accumulated at a business unit shall be allocated to cost objectives as follows:

(1) Where costs of any IR&D or B&P project benefit more than one segment of the organization, the amounts to be allocated to each segment shall be determined in accordance with paragraph (e) of this subsection.

(2) The IR&D and B&P cost pools which are not allocated under subparagraph (f)(1) of this subsection, shall be allocated to all final cost objectives of the business unit by means of the same base used by the business unit to allocate its general and administrative expenses in accordance with 9904.410-50; provided, however, where a particular final cost objective receives significantly more or less benefit from IR&D or B&P cost than would be reflected by the allocation of such costs the Government and the contractor may agree to a special allocation of the IR&D or B&P costs to such final cost objective commensurate with the benefits received. The amount of special allocation to any such final cost objective made pursuant to such an agreement shall be excluded from the IR&D and B&P cost pools to be allocated to other final cost objectives and the particular final cost objective's base data shall be excluded from the base used to allocate these pools.

(g) Notwithstanding the provisions of paragraph (d), (e) or (f) of this subsection, the costs of IR&D and B&P projects allocable to a home office pursuant to 9904.420-50(d) may be allocated directly to the receiving segments, provided that such allocation not be substantially different from the allocation that would be made if they were first passed through home office accounts.

9904.420-60 Illustrations.

(a) Business Unit A's engineering department in accordance with its established accounting practice, charges administrative effort including typing its overhead cost pool. In

submitting a proposal, the engineering department assigns several typists to the proposal project on a full time basis and charges the typists' time directly to the proposal project, rather than to its overhead pool. Because the engineering department under its established accounting practice does not charge the cost of typing directly to final cost objectives, the direct charge does not meet with the requirements of 9904.420-50(a).

(b) Company B has five segments. The company undertakes an IR&D project which is part of IR&D plans of segments X, Y, and Z, and will be of general benefit to all five segments. The company designates Segment Z as the project leader in performing the project. In accumulating the costs, each segment allocates overhead to its part of the project but does not allocate segment G&A. The IR&D costs are then allocated to the home office by each segment. The costs are combined with other IR&D costs that benefit the company as a whole. The costs are allocated to all five segments by means of the same base by which the company allocates its residual home office expense costs of all segments. This practice meets the requirements of 9904.420-40(b), 9904.420-50(e)(2), and 9904.420-50(f)(1).

(c) Business Unit C normally accounts for its B&P effort by individual project. It accumulates directly allocated costs and departmental overhead costs by project. The business unit also submits large numbers of bids and proposals whose individual costs of preparation are not material in amount. The business unit collects the cost of these efforts under a single project. Since the cost of preparing each individual bid and proposal is not material, the practice of accumulating these costs in a single project meets the requirements of 9904.420-50(c).

(d) Segment D requests that Segment Y provide support for a Segment D IR&D project. The work being performed by Segment Y is similar in nature to Segment Y's normal

product and is not part of its annual IR&D plan. Segment Y allocates to the project all costs it allocates to other final cost objectives, including G&A expense. Segment Y then directly transfers the cost of the project to Segment D in accordance with its normal intersegment transfer procedure. The accounting treatment meets the requirements of 9904.420-50(d) and 9904.410.

(e)(1) Contractor E has six operating segments and a research segment. The research segment performs work under

(i) Research and development contracts,

(ii) Projects which are not part of its own IR&D plan but are specifically in support of other segments' IR&D projects, and

(iii) IR&D projects for the benefit of the company as a whole.

(2) The research segment directly allocates the cost of the projects in support of another segment's IR&D projects, including an allocation of its general and administrative expenses, to the receiving segment. This practice meets the requirements of 9904.420-50(d).

(3) The costs of the IR&D projects which benefit the company as a whole exclude any allocation of the research segment's general and administrative expenses and are transferred to the home office. The home office allocates these costs on the same base it uses to allocate its residual expenses to all seven segments. This practice meets the requirements of 9904.420-50 (e)(2) and (f)(1).

(f) Company F accumulates at the home office the costs of IR&D and B&P projects which generally benefit all segments of the company except Segment X. The company and the contracting officer agree that the nature of the business activity of Segment X is such that the home office IR&D and B&P effort is neither caused by nor provides any benefit to

that segment. For the purpose of allocating its home office residual expenses, the company uses a base as provided in 9904.403. For the purpose of allocating the home office IR&D and B&P costs, the company removes the data of Segment X from the base used for the allocation of its residual expenses. This practice meets the requirements of 9904.420-50(e)(2).

(g) Company G has 10 segments. Segment X performs IR&D projects, the results of which benefit it and two other segments but none of the other seven segments. The cost of those projects performed by Segment X are transferred to the home office and allocated to the three segments on the basis of the benefits received by the three segments. This practice meets the requirements of 9904.420-50(e)(1) and 9904.420-50(f)(1).